



Digitized by the Internet Archive
in 2014

<https://archive.org/details/b19974760M2946>

The CHEMIST AND DRUGGIST

Established 1859

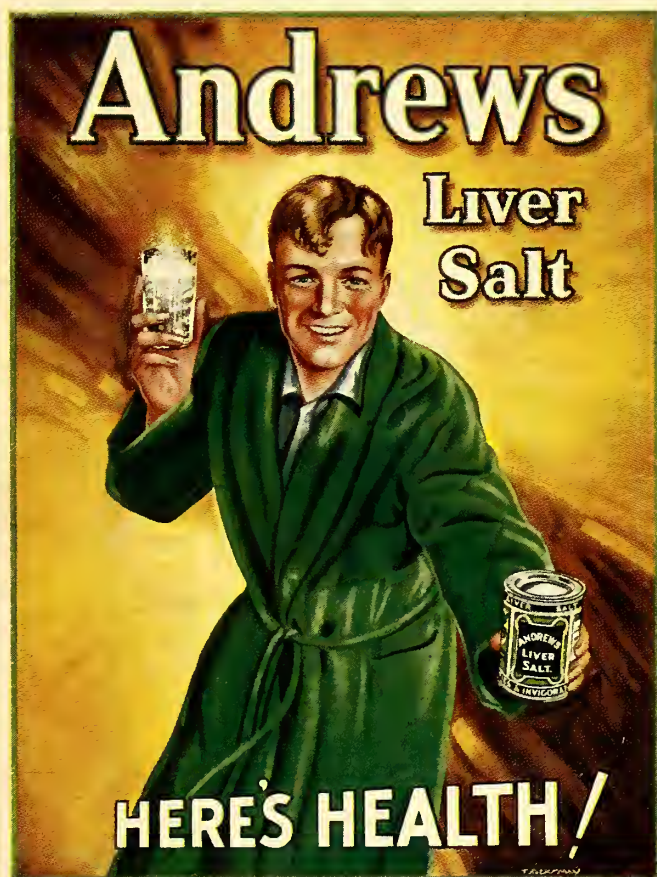
28 Essex Street, Strand, London, W.C.2

Registered as a Newspaper

No. 2825
VOL. CXX.

MARCH 31, 1934

Annual Subscription (with
Diary) 20/- Single Copies 9d.



Above is a miniature reproduction of the Andrews Liver Salt new poster, which will shortly appear on hoardings and vans throughout the country. Alongside are greatly reduced versions of two recent Press Advertisements from the National and Provincial Press.

SCOTT & TURNER LTD
GALLOWGATE, NEWCASTLE-ON-TYNE

ANDREWS sales-builders

The combined circulation of the newspapers in which the Andrews advertising now appears exceeds 18,000,000. In addition thousands, literally thousands, of posters on hoardings and vans regularly proclaim the Andrews message of Health and Fitness.

Magnitude is, however, only one distinguishing feature of the Andrews campaign. Equally noteworthy is its continuity. Month after month, year in and year out it carries on, building up *more and more* Sales. Get your share of this increased business by displaying Andrews prominently—where it will be seen by all who pass your windows.



SECURE THAT PROFITABLE PUBLIC BY PUSHING THESE



PERSONAL and medical recommendation, many years of well-conceived advertising and fulfilment of all claims made for them, have made these Genatosan lines deservedly famous.

THESE are products on which your really paying customers insist. There is a large percentage of profit in them for you—and particularly if you buy on direct cash terms. ★

★
If you have not yet taken advantage of these special terms, may we suggest that you write to us for full particulars which will be forwarded to you by return.

GENATOSAN

LIMITED

LOUGHBOROUGH,

LEICESTERSHIRE.

Telephone: Loughborough 292.

Telegrams: "Genatosan, Loughborough."

DISPLAY 'ASPRO' NOW



WHILE EPIDEMIC COMPLAINTS ARE ABOUT MAKE THE MOST OF THE TOPICAL 'ASPRO' ADVERTISING

Now is the time to get maximum results in 'ASPRO' sales. Epidemic complaints are about. 'ASPRO' is the ideal remedy for epidemic complaints so if you show 'ASPRO' window display material you will obtain handsome sales increases and will attract many people to your shop who might not otherwise have come. Topical advertising is appearing in all the leading papers with circulations aggregating over 30,000,000. You have only to show your advertising matter to get the benefit of this great sales stimulus. We suggest too that you take advantage of our Kristal envelopes and Greaseproof paper bags. Window shows will be sent post free on request to all who write for them.



PRICES FOR 'ASPRO' CHEMISTS ENVELOPES AND BAGS

| | | | |
|------------------------------|---|---------------|-----------------------|
| Kristal Envelopes | - | 2/6 per 1,000 | Cash with Order |
| Greaseproof 2oz. Bags | - | 1/- per 1,000 | |
| Greaseproof 2oz. Bags (long) | - | 1/6 per 1,000 | |

Agents :

GOLLIN & CO. PTY. LTD.
(‘Aspro’ Dept.), SLOUGH, Bucks.

Telephone : SLOUGH 608

‘ASPRO’ consists of the purest Acetylsalicylic Acid that has ever been known to Medical Science, and its claims are based on its superiority.

Made by ASPRO LTD., Slough, ENGLAND

No proprietary right is claimed in the method of manufacture or the formula.

ASPRO
REG. TRADE MARK

LEVER'S STANDARDIZED VITAMIN CONCENTRATES

ADVITA ESSOGEN

**VITAMIN A (Blue Value 1250)
and VITAMIN D (1000 u.p.g.)**

Advita — prepared from natural sources — is a highly concentrated form of Vitamin D, balanced with Vitamin A in order to obviate any possible danger that might arise from the use of concentrated forms of Vitamin D alone. It

effectively takes the place of cod liver oil in the prevention or treatment of rickets and in the promotion of proper calcification of the bones and teeth.



Supplied
in 2 min.
capsules in
Tubes of 50
and Bottles
of 500

VITAMIN A (Blue Value 2000)
is the most potent concentrate of Vitamin A so far marketed, having a Blue Value of 2000, i.e. 200 times that of a good cod liver oil. It has been perfected after many years of research in the Biological Laboratories of Lever Brothers Limited.

Used in a comprehensive series of tests under the auspices of the Medical Research Council (Annual Report 1929/30), Essogen (Lever's Preparation Y) is now offered to the medical profession as a well authenticated and accurately standardized preparation of the anti-infective Vitamin A.



Supplied
in 2 min.
capsules in
Tubes of 50
and Bottles
of 500

ADVITA ESSOGEN

Prices on application

Sole Distributors for the Biological Laboratories of
LEVER BROTHERS LIMITED

TRUFOOD LTD.

(Dept. No. 3), UNION HOUSE, 26 ST. MARTIN'S-LE-GRAND, LONDON, E.C.1

Telephone: National 6701

Protection that *lasts*

No germicide whose action is momentary or transient can provide reliable protection. The chemical barrier against infection must be more effective than this — it must be persistent.

'Dettol', the new safe germicide, is not only highly potent but its effect is lasting. Skin rubbed with undiluted 'Dettol' is protected from disease germs for at least two hours. 'Dettol' is non-poisonous and non-irritant even at full strength. It stains neither linen nor the skin. Its smell is agreeable. Yet the Rideal-Walker test proves it three times as strong a germicide as pure carbolic acid. 'Dettol' is a safe germicide — deadly to



germs but harmless to tissue. Most attractive in appearance and packing it sells at a reasonable price — 4oz. for 1/- and in larger sizes for medical and hospital use.

'DETTOL'

THE GERMICIDE WHOSE ACTION IS PERSISTENT

TRADE MARK

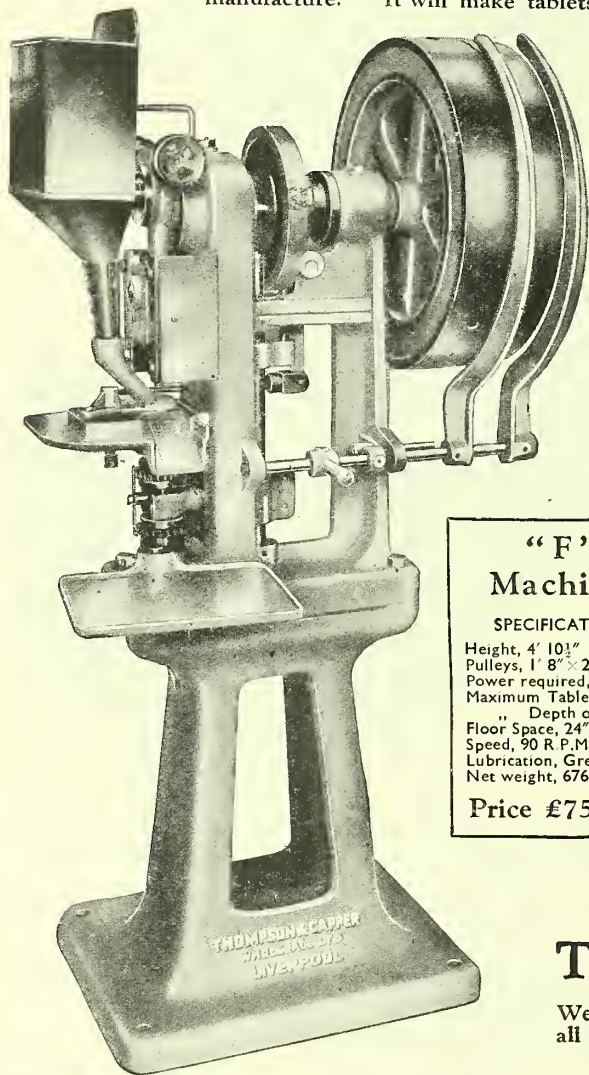
RECKITT AND SONS LTD. (PHARMACEUTICAL DEPT.), LONDON AND HULL

TABLET-MAKING MACHINES

TWO SINGLE-PUNCH MACHINES STOKES MANESTY "E" and "F"

Every Tablet-making department requires single-punch machines for small batches of tablets. The Stokes Manesty "E" and "F" machines suit all requirements in this respect.

The "E" machine is the smallest single-punch Tablet Machine that we manufacture. It will make tablets up to $\frac{1}{2}$ " in diameter—is extremely accurate and makes 90 to 100 tablets per minute according to material used. Easily adjusted, it will make any reasonable shape such as square, oblong, heart-shape, oval, etc. Three sets of standard round punches supplied with each machine. An extremely solidly built machine—all that is desired for smaller range of tablets. Grease gun lubrication.

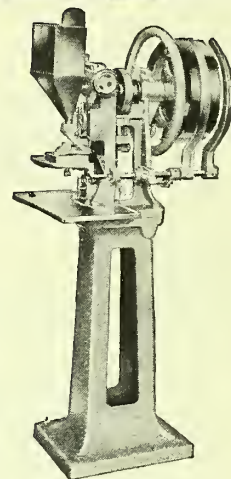


"F" Machine

SPECIFICATION

Height, 4' 10 $\frac{1}{2}$ "
Pulleys, 1' 8" x 2 $\frac{1}{2}$ "
Power required, 2 H.P.
Maximum Tablet, $\frac{3}{4}$ " dia.
" Depth of Fill, $\frac{11}{16}$ "
Floor Space, 24" x 36"
Speed, 90 R.P.M.
Lubrication, Grease gun.
Net weight, 676 lbs.

Price £75-0-0



"E" Machine

SPECIFICATION

Height, 4' 5"
Pulleys, 13 $\frac{1}{2}$ " x 2"
Power required, 1 H.P.
Maximum Tablet, $\frac{3}{8}$ " dia.
" Depth of Fill, $\frac{5}{16}$ "
Floor Space, 16" x 16"
Speed, 100 R.P.M.
Lubrication, Grease gun.
Net weight, 324 lbs.

Price £45-0-0

The "F" Tablet machine is a powerful single-punch power-driven machine capable of making tablets of any reasonable shape up to $\frac{3}{4}$ " in diameter. Having a larger range than the "E" machine, it is useful for lozenges and for pre-forming Bakelite and other moulding powders. Adjustments are simple and can be made whilst the machine is running.

Absolute accuracy of weight and pressure is maintained. Owing to its size and strength, this machine is capable of making a wide variety of tablets and is extremely useful in any tablet-making department.

Grease gun lubrication. Three sets of ordinary round punches and dies supplied with each machine.

We also build a gear-driven model of the "F" machine which is particularly useful when great compression is necessary. The speed of the ordinary model is 90 to 100 tablets per minute according to material used.

STOKES MANESTY TABLET MACHINES

We manufacture these machines ourselves; they are therefore all British made, of British material by British workmen. May we send you some interesting literature?

THOMPSON & CAPPER WHOLESALE LTD.

MANUFACTURERS OF CHEMICAL AND PHARMACEUTICAL MACHINERY
MANESTY BUILDINGS 5 COLLEGE LANE, LIVERPOOL, 1

INDEX TO ADVERTISERS

| | | | | | |
|--|-------------|--|------------|--|------------|
| Allen, Stafford, & Sons, Ltd. (Galenicals, &c.) | 24 | Burroughs Wellcome & Co. ("Tabloid" Cascara Sagrada) | 29 | Fairy Dyes, Ltd. (Dyes) | xiv |
| Anglo-French Drug Co., Ltd. (Biomucine, &c.) | x | Butler & Crispe (Service) | 19 | Fink, F., & Co. (Gums) | 12 |
| Arnfield, J. C., & Sons, Ltd. (Raspberry Vinegar, &c.) | ii | Caldicot Tin Stamping Works, Ltd. (Decorated Tins) | xv | Ford, Shapland & Co., Ltd. ("Sol-vo" Toilet Paper) | 14 |
| Aspro, Ltd. (Aspro) | 1 | Carnegie Bros., Ltd. (Nuphlogene Dressing) | vii | Fromm, H. (Morfi Rubber Products, &c.) | xvi |
| Association of Manfg. Chemists, Ltd. Col. Supp. | | Carter Bros. (Slumber Tea) | 12 | Genatosan, Ltd. (Genaspirin, &c.).....Cover | |
| Baker Metal Stopper Co., Ltd. (Screw Caps, &c.) | 15 | Cartwright, W. B., Ltd. (Indigestion Tablets) | 9 | George, Ernest J., & Co. (Valuers, &c.) Col. Supp. | |
| Bandoeng Quinine Factories (Quinine and Salts) | iv | Christy, T., & Co. (Co-re-ga) | 12 | Gibbs, Antony, & Sons (Iodine).....v | |
| Barker, R., & Son, Ltd. (Infants Preservative) | x | Clark, S. F. (Valuer, &c.) | Col. Supp. | Grout & Co., Ltd. (Crêpe Bandages) ... | 16 |
| Barnett, Jack L., Ltd. (Bottles) | 12 | Cooper Laboratory Ltd. (Tablets, &c.) v | | Guyot-Guenin & Son (Tamar Indien Grillon) | vi |
| Beatson, Clark & Co., Ltd. (Bottles)... | 15 | Cox, A. H., & Co., Ltd. (Packed Pharmaceuticals) | Cover | Hackett, S. E. (Film Overstocks) Col. Supp. | |
| Beechams Pills, Ltd. (Beechams Lung Syrup) | xi | Dalmas, A. de St., & Co., Ltd. (Toothbrushes) | 22 | Hampden Residential Club | Col. Supp. |
| Bell, John, Hills & Lucas, Ltd. (Cold Cure Capsules)..... | Leader Page | Davenport, J. T., Ltd. (Chlorodyne) ... | viii | Hampshire, F. W., & Co., Ltd. (Snow-fire Cream) | 10 |
| Berdie & Fish, Ltd. (Valuers, &c.) Col. Supp. | | Denver Chem. Mfg. Co. (Antiphlogistine) | viii | Hampson, Fredk. (British Bottles) | 8 |
| Bertrand's Odourless Pessaries..... | 12 | Dick, W. B., & Co., Ltd. (Liquid Paraffin) | vi | Harrison, A., & Sons, Ltd. (Printing) ... | 25 |
| Betts & Co., Ltd. (Collapsible Tubes) | 8 | Distillers Co., Ltd. (D.C.L. Yeast Tablets) | xii | Harvey & Co. (Dublin), Ltd. (Veterinary) | xv |
| Box, W. H. (Box's Pills) | ix | Dixor, Ltd. (Toilet Preparations) | 11 | Holroyd's Oil and Ceresine Co., Ltd. (Petroleum Jelly) | x |
| British Drug Houses, Ltd., The (Tablets) | 30 | Dudley & Co., Ltd. (Display Counters) | 26 | Hough, Hoscason & Co., Ltd. (Nalگو Antiseptic) | 5 |
| Buckley-Bowker Tablet Co., Ltd. (Tablets, &c.) | ii | Eagle Photographic Service (D. & F. Service) | 26 | Hubbuck, T., & Son, Ltd. (Oxide of Zinc) | ii |
| Burall Bros. (D. & P. Service) | 12 | Eucryl, Ltd. (Dentifrices) | 10 | Ibberson, G., & Co. (Razor Blades) | 10 |
| Burrough, James, Ltd. (S.V.R. for Tinctures) | Leader Page | Evans Sons Lescher & Webb, Ltd. (Packed Goods) | 13 | Ingram & Royle, Ltd. (Mineral Waters) | xiii |

{Continued overleaf.

SALES INCREASING EVERY MONTH!

NALGO

THE PAIN-KILLING ANTISEPTIC

You will be asked for this unique Antiseptic because:—

Dentists and Medical men throughout the country have acclaimed NALGO as the Antiseptic for which they have been waiting.

NALGO the efficient and pleasant gargle.

NALGO is the ideal Mouth Wash after Dental extraction.

NALGO for Septic Sockets, Spongy Gums, Pyorrhoea, etc.

NALGO for Cuts, Wounds, Abrasions, Scalds.

You will be doing your customers a good turn by recommending NALGO because NALGO definitely takes away pain, stops swelling and quickly subdues inflammation.

Packed in two sizes—10½d. and 1s. 6d.

TRADE & EXPORT ENQUIRIES INVITED.

HOUGH, HOSEASON & Co., Ltd.
Manufacturing Chemists, MANCHESTER

N.A.I.

Backed
by merit &
National
advertising

INDEX—cont.

| | | | | | |
|--|----------------|---|-------------|--|-------------|
| Josephs, Philip, & Sons, Ltd. (Shop-fittings) | 14, Col. Supp. | Nestlé & Anglo-Swiss Condensed Milk Co. (Lactogen) | xii | Sherley, A. F., & Co., Ltd. (Veterinary Preparations)..... | xv |
| Lax & Shaw, Ltd. (Bottles) | 23 | Orridge & Co. (Valuers, &c.)..... | Col. Supp. | Smith, Martin H., Co. (Ergoapiol) | vii |
| Levermore, A., & Co., Ltd. (Precipitated Chalk) | 12 | Paines & Byrne, Ltd. (Glandular Products) | Leader Page | Smith, T. & H., Ltd. (Alkaloids) | iii |
| Lincoln and Midland Counties Drug Co., Ltd. (Clarke's Blood Mixture) ... | ix | Parkinsons, Ltd. (Kilko) | Leader Page | Southall Bros. & Barclay, Ltd. (Sanitary Towels) | 26 |
| Liverpool School of Pharmacy..... | Leader Page | Perry & Hope, Ltd. (Phosphate of Soda) | 12 | Speer, W. R., & Son (Toothbrushes)..... | 10 |
| Locker, T., & Co., Ltd. (Wire Screens, &c.) | 12 | Poth, Hille & Co., Ltd. (Beeswax) | vi | Spicer, E. H., & Co., Ltd. (Edwenil)..... | ix |
| Lofthouse & Saltmer, Ltd. (Halibut Liver Oil) | xii | Potter & Clarke, Ltd. (Wholesale Druggists) | 17 | Stemco, Ltd. (Forhans) | 7 |
| London Capsule Co. ("Adaptocaps")... | 14 | Prescriber, The | Leader Page | Sterns, Ltd. (Oils, Petroleum) | vii |
| Longman, J. W., Ltd. (Herbaras) | viii | Putnams Dependable Service (Poultry Products) | Leader Page | Sumner's Typhoo Tea, Ltd..... | Leader Page |
| Low, Son & Haydon (Toilet Preps.) ... | 12 | Rendell, W. J., Ltd. (Quinine Preparations) | 20 | Surgical Hosiery Co., Ltd. | 25 |
| Macandrews & Forbes, Ltd. (Apollo Liquorice) | iv | Reckitt & Sons, Ltd. (Dettol) | 3 | Thompson & Capper Wholesale, Ltd. (Mothaks, &c.) | 4, 27 |
| Matthews, D., & Son (Shopfittings) ... | 12 | Resynthite, Ltd. (Bakelite Containers) xiv | | Tilbury, W. R., & Son (Toothbrushes) 16 | |
| Matthews Laboratories, Ltd. (Digitals) | Leader Page | Roberts & Newton (Labels)..... | Leader Page | Tomlinson, T., & Son (Valuers, &c.) | Col. Supp. |
| Maund, F., & Berg, E., Ltd. (Showcases) | Col. Supp. | Roberts' Patent Filling Machine Co..... | xv | Trufood, Ltd. (Advita, Essogen) | 2 |
| Mawson Filter Co. (Mawson Filters) ... | 12 | Robinson & Sons, Ltd. (Sanitary Towels) | 16 | Tyrer, T., & Co., Ltd. (Sterling Brand Chemicals) | iii |
| Maxwell, Plaistowe & Co., Ltd. (Sandalwood Oil) | iv | Rooney, R. A., & Sons (Shaving Brushes) | 11 | United Glass Bottle Manufacturers, Ltd. (Dispensing Bottles) | 21 |
| Meggesson & Co., Ltd. (Sulphur Lozenges, &c.) | i | Rudolph Riddell, F. O. (Somnacetin, &c.) | 6 | Washington Chemical Co., Ltd. (Cream of Magnesia) | iii |
| Midgley & Parkinson, Ltd. (Yeast Preps.) | 12 | Sasso, P., & Figli (Olive Oil) | 28 | Whiffen & Sons, Ltd. (Sandalwood Oil, &c.) | Cover |
| Millar, A., & Co., Ltd. (Orange Wine) x | | Schutze, F., & Co., Ltd. (Surgical Appliances, &c.) | 26 | White, J. F., & Co. (Kompo) | vii |
| Miss Muffet Toilet Paper Co..... | 26 | Scott & Turner, Ltd. (Andrews Liver Salt) | Cover | Willows, Francis, Butler & Thompson, Ltd. (Galencials, &c.) | v |
| Mitchell, N. W., & Snow, Ltd. (Corks) xiv | | Shaw, J., & Sons, Ltd. (Trojan Outfits) 16 | | Yvonne, W. J., et Cie, Ltd. (Toilet Preps.) | 16 |
| Molson Ionized Iodine Co., Ltd..... | 12 | Scurr, C. A. (Optical Tintion)..... | Leader Page | Zeal, G. H., Ltd. (Clinical Thermometers) | 25 |
| Mysore, Trade Commissioner for, in London (Sandalwood Oil) | 18 | Shadeine Co. (Hair Dyes) | 12 | Zimmermann, A. & M. (Chemicals) | v |
| | | Sharplin, W. J., Ltd. (Stoppers) | xiv | | |

SOMNACETIN

According to Prof. C. von NOORDEN, University of Vienna

A Compound of SODIUM-DIETHYLBARBITURATE-PHENACETIN-CODEINE

The ideal HYPNOTIC, SEDATIVE, SOPORIFIC and ANALGESIC

SOMNACETIN the first pharmacologically constructed combination product produced by Prof. von Noorden has proved for over 20 years to be the most reliable and best tolerated SOPORIFIC and SEDATIVE

The soporific effect is 20 times greater than that of Sodium Diethylbarbiturate.

SOMNACETIN induces a calm, natural sleep of several hours without any resulting somnolence.

SOMNACETIN has no injurious effects upon the heart, circulation, kidneys, or respiration.

SOMNACETIN CAPSULES represent the first soporific, the effect of which is timed to set in when patients awake during the early hours of the morning, thus ensuring a continuation of the natural sleep.

SOMNACETIN is supplied in Tablets, Drops, Ampoules, Capsules, Suppositories and in Powder for dispensing.

For LITERATURE and PRICES apply to the Sole Distributor for the BRITISH EMPIRE:—

FRANCIS O. RUDLOPH-RIDDELL, DEPT. C. & D.

Telephone: HOLBORN 9200 SENTINEL HOUSE, Southampton Row, LONDON, W.C. 1



a "big" seller

Whenever Forhan's for the Gums is prominently displayed it quickly becomes a big seller, for a sight of the product reminds the public of the "Four out of five over forty" advertising that proves Forhan's necessary.

And remember, Forhan's for the Gums is a worth-while unit, bringing an appreciable profit with every sale.

Window display earns special bonus terms—ask your Stemco representative.

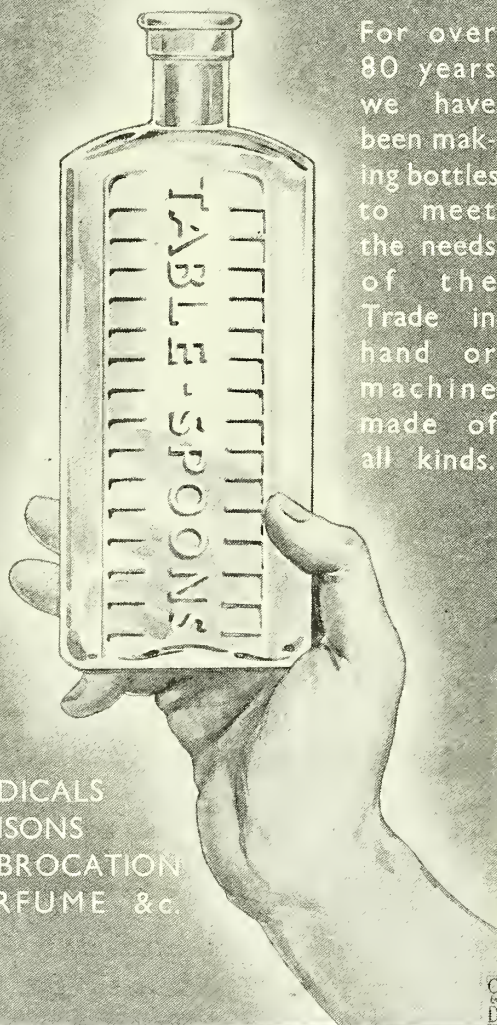
Sole Selling Agents:

STEMCO LIMITED
128 Albert St., Camden
Town, London, N.W.1

BOTTLES

THAT ARE BETTER

British Made



MEDICALS
POISONS
EMBROCATION
PERFUME &c.

FREDERICK
HAMPSON
LIMITED

Perseverance Glass Wks.
SALFORD 5
ESTABLISHED 1851

It looks better
—It keeps safer
in a **BETTS'**
COLLAPSIBLE
TUBE



- They keep your product in perfect condition.
- Their quality and finish is unsurpassed in the trade.
- All British made.
- New machinery enables us to cut production costs.

Send for particulars, samples and quotations to

BETTS & CO., LTD.

1 WHARF RD., CITY RD., LONDON, N.1

Established 1857

Telephone: Clerkenwell 1918

New Zealand Representatives:

NEIL, CROPPER & CO., LTD., Post Box 74, Dilworth Building
AUCKLAND NEW ZEALAND



DEMAND-AS INSISTENT AS THE MODERN AGE ITSELF

The life of to-day and 'Moorlands' are closely related. Hurry and worry, wrong and wrongly-cooked foods and many other factors induce indigestion in every class of the community. Thus it is that, in the health schedule of the nation, Moorlands has a place of first importance: a fact substantiated by thousands of sufferers. Demand for Moorlands never slackens. On the contrary, it is always rising, because one satisfied user, through recommendation, can create a dozen more. New customers are created also by strong skilful advertising – WHICH DURING 1934 IS BEING INCREASED STILL MORE. Add to these the effective use of first-class Moorlands display material and you see how profitable a line Moorlands really is. *There is no other 7½d. Nationally advertised article, selling in such quantity as Moorlands, which yields anything approaching the same percentage of profit.*

THE

PUBLIC

WILL

HAVE

IT PAYS TO DISPLAY MOORLANDS

MOORLAND
BRAND
INDIGESTION TABLETS

W. B. CARTWRIGHT LTD., Rawdon, Leeds

Established 1900

EUCRYL DENTIFRICES

EUCRYL TOOTH POWDER
EUCRYL TOOTH PASTE
EUCRYL DENTURE POWDER

Bought on Display Terms Yield:

PROFIT ON
SELLING PRICE

43%

PROFIT ON
BUYING PRICE

75%



**BRITISH OWNED
BRITISH MADE**

Continuously Advertised
Quick Sales Large Profits

EUCRYL Limited

Manufacturing Chemists - SOUTHAMPTON

*"Every
month a bigger
jump in sales"*

This is what you'll hear from chemists all over the country who push Snowfire Cream. What a marvellous seller this popular Vanishing Cream is—always making new customers, never losing the old ones. Stock and display Snowfire Cream—be certain of easy sales and big profits.

Snowfire
vanishing
Cream



Handbag Containers 3d.
Dainty Tubes 6d. (Retail)

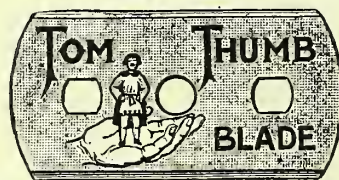
MANUFACTURED BY
F. W. HAMPSHIRE & Co. Ltd.,
Sunnydale, Derby.

HANG IT

UP AND LET
IT SELL ITSELF

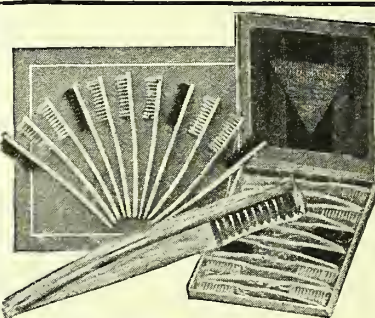
1d.
Each
Retail

Supplied on cards or
boxed. Show cards
with every order.



MADE BY
GEORGE IBBERSON & CO.
Razor Works, 146 West St., Sheffield

British Made



**"THE
STATIC"**

Reg. No. 525,523

**TOOTH
BRUSH
BONEHANDLES
WHITE,
UNBLEACHED,
OR BLACK
BRISTLES**

Names free on
6 doz. lots.

6/6 per doz.

From all Wholesalers.

MANUFACTURERS:

W. R. SPEER & SON, 215 Dalston Lane, E.8.

EST. 100 YEARS.



VELOUTY de DIXOR

LONDON & PARIS

THE ORIGINAL
COMBINED CREAM AND POWDER

P.A.T.A. Prices :

| | Retail | Wholesale per doz. |
|-----------------------|--------|-----------------------|
| Tubes, No. 1 ... | 4½d. | 3/- |
| No. 2 ... | 6d. | 4/- |
| No. 3 ... | 1/- | 7/- |
| No. 4 ... | 2/- | 14/- |
| No. 5 ... | 3/- | 22/- |
| Pots, Glass ... | 2/9 | 21/- |
| De Luxe (unbreakable) | 4/6 | 36/- |
| Handbag (unbreakable) | 1/3 | 10/- |

Pots

All packed in five shades:— White, Ivory, Natural, Ochre,
Soleil Doré (Sungold)

IMPORTANT.

The Soleil Dore (Sungold) shade of
Velouty should now be stocked ready
for the special seasonal demand
which is even now commencing.

DIXOR LTD., DANEMERE STREET, LONDON, S.W. 15.



The Brush with the IVORY GRAIN

- Knots guaranteed not to come out.
- Handles guaranteed not to split.
- Handles will not discolour in the shop window.

| | Trade doz. | Sell each |
|---------------------------------|---------------|--------------|
| No. 69 White Hog Hair - | 20/- | 2/6 |
| No. 70 Badger Hair and Bristles | 24/- | 3/- |
| No. 71 Badger Hair and Bristles | 28/- | 3/6 |
| No. 72 Badger Hair and Bristles | 36/- | 4/6 |
| No. 73 Badger Hair and Bristles | 40/- | 5/- |

All IVORY GRAINED HANDLES resplendent finish

This Mahogany Finished Display Stand given free for minimum order
for one dozen brushes providing one set as shown above is included.

Obtainable from your regular wholesaler

MADE
BY

R. A. ROONEY & SONS

ESTABLISHED OVER A CENTURY

WALTHAMSTOW,
LONDON, E. 17

PRECIPITATED CHALK

LIGHTEST—MEDIUM—DENSE.
And All Other Grades To Suit Every Purpose.
Prepared Chalk B.P. and Powdered Talc.

'Phone : Mansion House 7300. Tel. Add. : "Levermore, Phone, London."
A. LEVERMORE & CO. LTD. ABC Codes,
110 CANNON STREET, LONDON, E.C.4. 6th Edition.

GUMS

TRAGACANTH
and ARABIC
As Imported or Finely Powdered

WHITE SHELLAC

FREDK. FINK & CO., 10 & 11 Mincing Lane, London, E.C.3
Telephone : ROYAL 5094

"VITAMIN TESTED YEAST"

Yeast specially prepared for medicinal purposes

GUARANTEED ABSOLUTELY PURE

WIDGLEY & PARKINSON, LTD., Warren Works Pudsey, LEEDS

Sole selling agents for Great Britain—

THE OLD STRAND CHEMICAL & DRUG CO., LTD.
Audrey House, Ely Place, London, E.C.1

PHOSPHATE OF SODA, Pure

For Food Purposes
ASK FOR SAMPLE AND PRICES

PERRY & HOPE, LTD.

Forth and Clyde Chemical Works, NITSHILL
Telephone : Giffnock 414 (2 lines). Telegrams : "Perryope, Nitshill."

IONIZED IODINE

(MOLSON BRAND)

Obtainable from the usual wholesalers or the makers

MOLSON IONIZED IODINE CO. Ltd.

34 C, GABRIEL'S HILL, MAIDSTONE

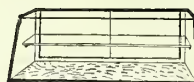
BE PREPARED FOR THE COMING SEASON

Increase Your Developing
and Printing Service!

Make use of our really useful series of D. & P.
books, also our Printed Aids to Selling.

Interesting range of samples post free

BURALL Bros. - Wisbech, Cambs.



THE KWIK-SALE SHOWCASE

Suitable for all Businesses.

D. MATTHEWS & SON,
*Shop Fitters and Showcase
Manufacturers.*

14/16 Manchester St.
LIVERPOOL.

Plate glass sloping front. Frameless Mirror
sliding doors at back. Polished edge plate
glass shell inside. Size 3 feet long. 14 in.
back to front at bottom. 9 in. back to front
at top. 12 in. high.£5-10-0



SHADEINE FOR TINTING GREY HAIR

This popular article is largely advertised
and stocked by all Wholesale Houses.

| | |
|------------------------------|------|
| Trial size 8d. per doz. | 0/- |
| 1/4 size, per doz. | 12/- |
| 2/6 size, per doz. | 24/- |
| 3/0 size, per doz. | 36/- |

The SHADEINE Co., 58, Westbourne Grove, London, W.2

Louis de Luxe Products

ALL TOILET PREPARATIONS

PROPRIETORS:

Low, Son & Haydon, Limited

5 GT. QUEEN ST., LONDON, W.C.2 COURT
TELEPHONE : HOLBORN 6410 EST. 1790 PERFUMERS

t

DOES NOT REQUIRE AN AXE
TO CUT COSTS DOWN.
**BARNETT FOR BOTTLES, GLASS-
WARE, FANCY FILLING LINES,
CAN DO IT!**

**JACK L. BARNETT
Ltd.**

18 Basinghall St.
Leeds1. Tel. 28447



CHERRY'S SLUMBER-TEA

A profitable, easy selling
all-the-year-round line with an ever
increasing demand. A counter display will
readily pay you. Particulars, etc., from
CARTER BROS., SHIPLEY, Yorks.

WIRE SCREENS & PERFORATED METALS

WIRE CLOTH in meshes up to three-hundred per inch.
PERFORATED METAL in any size and shape of hole and
in every thickness practicable.

THOMAS LOCKER & COMPANY, LIMITED

WARRINGTON - ENGLAND

Established half a century.

Phone : 910

MAWSON FILTERS

always give satisfaction. They
eliminate all risk of water
contamination. Simple in
construction, they do their job
efficiently at a minimum cost.
They have a world-wide reputa-
tion. May we send you our des-
criptive list? Overseas enquiries
specially invited.

The MAWSON FILTER Co., 20 Grainger St., Newcastle-on-Tyne

BERTRAND'S ODOURLESS PESSARIES

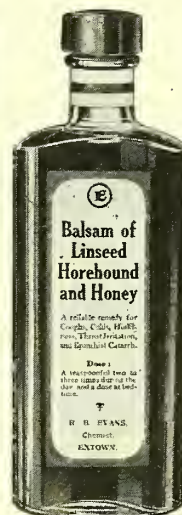
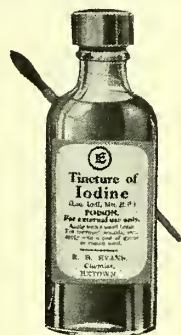
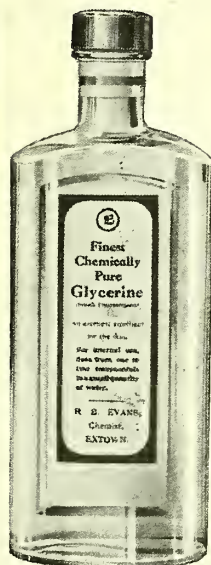
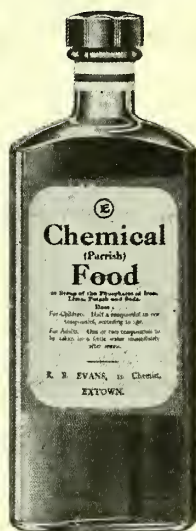
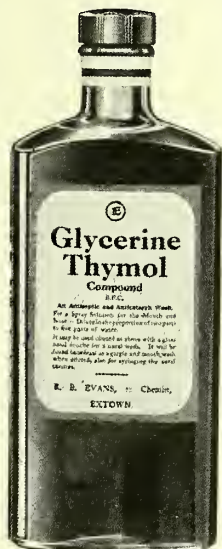
CHARLTON & CO., Upper Norwood, S.E.19,
and all Wholesalers. 15/- per doz.

FREE and POST FREE NEW CO-RE-GA CARD

Display It and Increase your sales
THOS. CHRISTY & Co., Old Swan Lane, London, E.C.4

Evans'

FOR
PACKED GOODS
OF DISTINCTION



THE ABOVE ILLUSTRATES PART OF OUR "MONOGRAM" SERIES OF MEDICINAL GOODS, LABELLED IN CREAM BACKGROUND WITH SEPIA BROWN BORDER AND OLD ENGLISH MONOGRAM INITIAL LETTER IN CIRCLE AT TOP

EVANS' PACKED GOODS MAY BE RELIED UPON ALWAYS
THERE IS A CENTURY OF EXPERIENCE BEHIND THEM

Evans Sons Lescher & Webb Ltd.

WHY NOT ENQUIRE ABOUT OUR NEW

IDEAL SHOPFITTINGS?

PHILIP JOSEPHS & SONS, LTD.

PHARMACEUTICAL SHOPFITTERS

90 & 92 St. John Street, Clerkenwell, LONDON, E.C.1

Telephone: CLERKENWELL 2191

Telegrams: JOSIPHIAH SMITH, LONDON

"PHARMACY FITTERS FOR OVER A CENTURY"

"Adaptocaps"

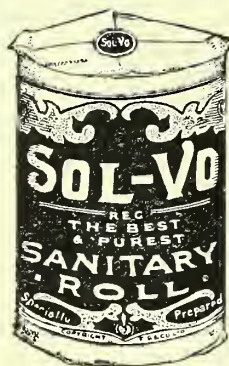
*will give
your bottles
Distinction*

These Dry Bottle Caps are made in all sizes and colours, clear and opaque. They are Self Sealing, of unrivalled quality and BRITISH MANUFACTURE. Special low rates for large contracts. Let us quote you.

The London Capsule Co

EMPIRE WORKS, MITCHAM RD., CROYDON
Telephone: Thornton Heath 3014

**SOL-VO
SELLS ITSELF**



SOL-VO gives a good margin of profit to the Chemist and is economical for the customer because it contains nearly three times as much paper as the "so-called" cheap varieties. It pays to stock and display SOL-VO. Why not give it a trial?

FORD, SHAPLAND & CO. Ltd.

GT. TURNSTILE, HIGH HOLBORN,
LONDON, W.C.1

Telephone: Holborn 4695.



SHOP ROUNDS

OIL ROUNDS
POISONS
SYRUPS & ETHERS

with and without

RECESS LABELS
DISTINCTIVE
QUALITY.

BEATSON, CLARK
& CO. LIMITED

ROTHERHAM

YORKS



POWDER BELLOWS

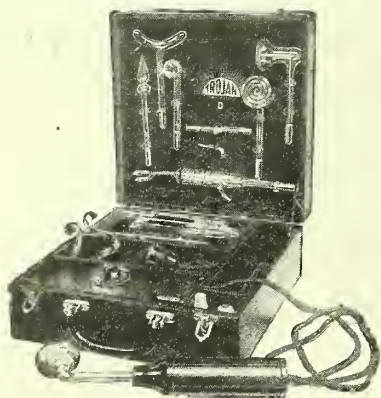
for
Powders



In
Gilt and
Enamel
Spray
for
Face Cream Pots
etc.

**BAKER METAL
STOPPER CO. LTD.**

HADLEY STREET, KEYHILL, BIRMINGHAM
'Phone: NORTHERN 1562. 'Grams: "SCREWCAP, BIRMINGHAM."



★ Have you heard about the TROJAN Electric Inhaler? A wonderful invention for relieving Coughs, Colds, Influenza, Asthma, Catarrh, etc. Let us send you full particulars and prices.

Beauty and Hair Specialists are creating the demand

. are you reaping
the benefit?

As a qualified chemist you can sell TROJAN High Frequency Outfits with absolute confidence. They are being strongly recommended for Health and Beauty by Specialists all over the Country.

So simple and safe to use, they have a place in every home. Moderate in price, they are absolutely reliable and will give every satisfaction. Write for details tonight—you will be surprised at the generous trade terms we offer.

JOHN SHAW & SONS, WOLVERHAMPTON, LTD

(Established 1795)

Head Office & Works: WOLVERHAMPTON

Telephone: 21212

Telegrams: Shaw, Wolverhampton

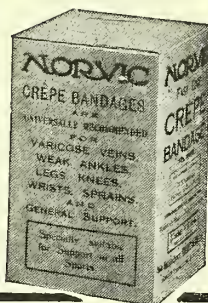
NORVIC

BLUE CARTON CRÊPE BANDAGES

The Blue Carton, prominently displayed in the window or on the counter, will increase your crêpe bandage sales enormously. A P.A.T.A. LINE with FULL 33% PROFIT.

From leading wholesalers.

Sole manufacturers: Grout & Co. Ltd.
35 Wood Street, London, E.C.2.



From your
Wholesale
House, please.

A superior quality hygiene and a great favourite with women. Also SU-CAN Soluble, for easy disposal.

ROBINSON & SONS LTD., CHESTERFIELD & LONDON

THE

"Lady Nicotine"

Regd.

A popular Ladies' Brush



W. R. TILBURY & SON

47 Frampton Park Rd., London,

Estd. 1880

E. 9

"Yvonne"
ROUGE · LIPSTICK
LA · HBLAK FOR THE EYES
AND POWDER.

Leading
6^d
Lines



BIGGEST SELLERS
Greatest Value & Quality
SOON TO BE
NATIONALLY ADVERTISED

Splendid Show Material available.
Write to-day for Samples and Prices.
W. J. YVONNE et Cie, Ltd., 8a Lord St., LIVERPOOL.
(Also London and Paris.)



POTTER'S CATARRH PASTILLES



P. A. T. A. 1s. 3d.
PER DOZ. 11s. 0d.
BOXES $\frac{1}{2}$ DOZ.

*Advertising is continuous and
carried on throughout the year*

'Phone :
Bishopsgate
4761
(5 lines)

'Grams :
"Horsehound"
Phone
London "
(2 words)

LOOK TO YOUR STOCKS

POTTER & CLARKE Ltd.

60-64 ARTILLERY LANE, LONDON, E.1

Manchester: 77 Dantzic Street.



SANDALWOOD OIL

Distilled from *SANTALUM ALBUM*. linn. at the **MYSORE GOVT. FACTORIES**

90%

ACTUAL SANTALOL
GUARANTEED B.P.
& U.S.P. STANDARDS
FOR FURTHER
INFORMATION APPLY.

TRADE COMMISSIONER
for MYSORE in LONDON
GRAND BUILDINGS
TRAFALGAR SQ., W.C.2

THE METHODS OF DISTILLA-
TION AND CONTROL ADOPTED
IN THE FACTORIES OF THE
MYSORE GOVERNMENT ARE
SUCH THAT BUYERS MAY
REST ASSURED THAT EVERY
CONSIGNMENT OF EAST
INDIAN SANDALWOOD OIL
RECEIVED BY THEM WILL BE
OF PRACTICALLY IDENTICAL
COMPOSITION



Sole Agents for America:

MESSRS. W. J. BUSH & CO., INC., 11 EAST 38th STREET, NEW YORK

Sole Agents for Canada:

MESSRS. W. J. BUSH & CO. (CANADA) LTD., 432 ST. HELEN ST., MONTREAL

Agent for Germany and
the Balkan States:

MR. LEOPOLD LASERSON, ALTE JACOBSTRASSE 20-22, BERLIN, GERMANY, S.W.68

**NO QUICKER SERVICE
NO BETTER PRICES**



Butler & Crispe offer Chemists

o service of unequalled value for the promptest delivery of all orders to any distance by the quickest route. Town deliveries by motor, provincial also by motor over a wide area. Rail orders despatched same day as received. British, French and American medicines, toilet goods and perfumery. Fine chemicals. Druggists' sundries. Photographic goods.

BUTLER & CRISPE

J. H. CRISPE

L. H. CRISPE

R. P. GOWER

80-84 CLERKENWELL ROAD, LONDON, E.C.1

Established 1777

Phone: Clerkenwell 2661 (15 lines)

Grams: Alluwant, Smith, London

Cables & Marconigrams: Alluwant, London

The Line With The Right Background



W.J.Rendell Ltd, 161-165, Roseberry Avenue, London.W.C.1



INDISPENSABLE

DISPENSING SERVICE!

**Packed in Sealed Non-Returnable
Standardized Fibre Cartons in the
Following Quantities Only**

| | |
|--------------------------------|-------------------------------|
| 1 oz. Packed 2 gross per case. | 8 oz. Packed 6 doz. per case. |
| 2 oz. " 1 " " | 10 oz. " 4 " " |
| 3 oz. " 1 " " | 12 oz. " 4 " " |
| 4 oz. " 1 " " | 16 oz. " 4 " " |
| 6 oz. " 6 dozen " | 20 oz. " 3 " " |

**"The
Perfect
Pair"**

Cap and Bottle
manufactured by

THE special U.G.B. process of Sterilizing by passing every single bottle through boiling distilled water and drying in super-heated filtered air has proved a boon to the busy dispenser.

Straight from sealed fibre dustproof cartons—ready for instant use—sparkling bright and scientifically sterile.

UNITED GLASS BOTTLE
MANUFACTURERS • LIMITED

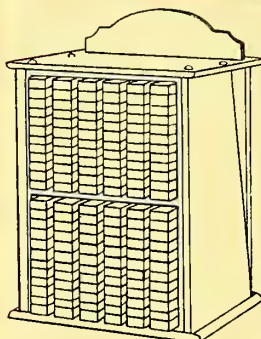
The Largest Manufacturers of Glass Bottles in Europe.

40-43 NORFOLK STREET, STRAND, LONDON

Telephone:
TEMPLE BAR 6680 (10 lines)

W.C.2
Telegrams:
"Unglaboman, Estrand, London"

SPECIAL SPRING OFFER!



Rear view of Cabinet showing convenient arrangement of stock. Height 16", width 12½", depth 9½".

FREE . . . this splendid self-contained Display Cabinet with all orders for a gross of our MON-I-TOR Toothbrushes. The cabinet is finished in Mahogany with Chromium Plated Pillars and the glass front shows the dozen different types of brushes priced for easy choice. These are packed in attractive hygienic three-colour cartons and with this order your name and address will be printed on the handles of the Brushes—*free of charge*.

MON-I-TORS are pure bristle, sterilised modern brushes . . . British made throughout. They yield a handsome profit both in cash and prestige to the retailers stocking and displaying them.

CONSULT us before placing your orders for the undermentioned articles. We are in a position to offer you EXCEPTIONAL VALUE.

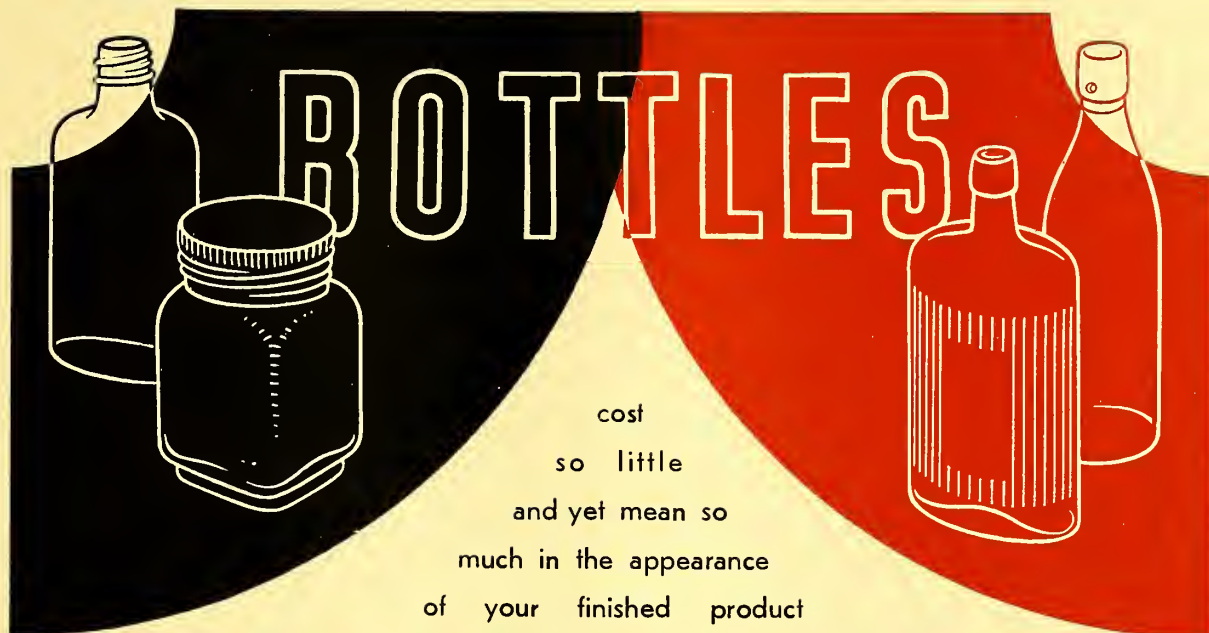
SPONGE BAGS, WASHING SQUARES, BATHING CAPS, FLESH GLOVES, SUNBURN AND SUNTAN OILS AND LOTIONS.

A DE ST. DALMAS & CO. LTD.
(Established 1823)

HEAD OFFICE : LEICESTER
Also at LONDON (Clerkenwell 3399)
DUBLIN and LEEDS.

Export Managers : LYALL WILLIS & CO.,
LTD., BILLITER HOUSE, BILLITER
STREET, LONDON, E.C. 3

A. de St. DALMAS & Co. Ltd. LEICESTER



BOTTLES

cost
so little
and yet mean so
much in the appearance
of your finished product

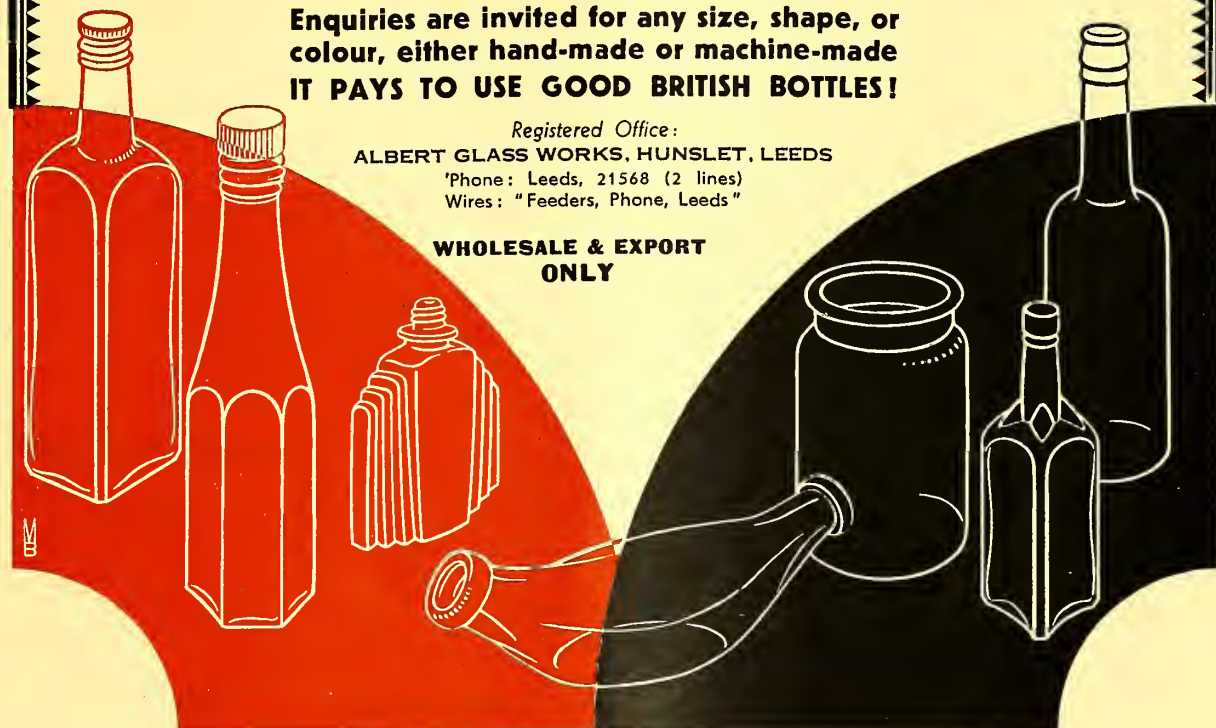
LAX & SHAW

is a household name in the bottle-making industry. Decades of experience, three up-to-date factories—skilled craftsmen—all these mean cleanly moulded sparkling containers which you can be proud of using—and at distinctly interesting prices

**Enquiries are invited for any size, shape, or colour, either hand-made or machine-made
IT PAYS TO USE GOOD BRITISH BOTTLES!**

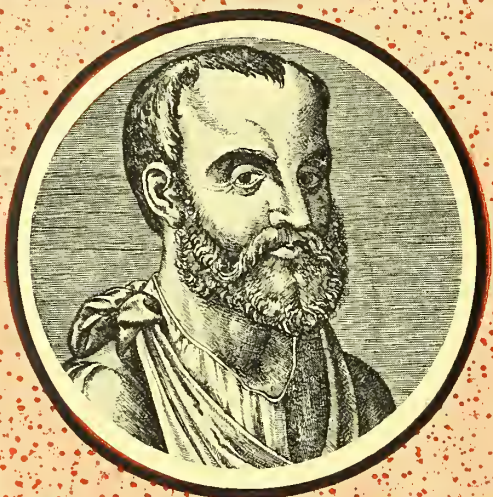
Registered Office:
ALBERT GLASS WORKS, HUNSLET, LEEDS
Phone: Leeds, 21568 (2 lines)
Wires: "Feeders, Phone, Leeds"

**WHOLESALE & EXPORT
ONLY**



Famous Figures

(5)



G A L E N

Claudius Galenus (130-205 A.D.), the Greek philosopher, physician and pharmacist upon whom the mantle of Hippocrates fell, was the arbiter of medical theory and practice for over fifteen centuries. The doctrines he advanced, the preparations he advocated, and the therapy he followed were accepted as canonical by the entire medical world throughout this period. In 1560, for example, one Dr. Geynes was not admitted to Fellowship of the Royal College of Physicians "until he had signed a recantation of his error in having impugned the infallibility of Galen."

Galen wrote on an encyclopaedic scale, but only about 85 monographs have survived. He used innumerable drugs; one of the most celebrated preparations he originated, cold cream, is still favoured to-day.

A Figure intended to represent Galen appears on the Sinister Side of the Armorial Bearings of the Pharmaceutical Society of Great Britain.

In Pharmacy AND ITS ALLIED FIELDS

STAFF ALLEN'S

GALENICALS

EXTRACTS

LIQUID

SOLID

TINCTURES

POWDERED DRUGS

OINTMENTS

ETC., ETC.

WHOLESALE TRADE ONLY

STAFFORD ALLEN & SONS LTD.

MANUFACTURING CHEMISTS

COWPER STREET, LONDON,

E.C.2.

100 Years of Service

Established 1833

"SURCO"

RELIABLE
ELASTIC HOSIERY
SEAMED & SEAMLESS

For special garments to
measure we maintain a 24
hour service.

:: **BODY BELTS** ::
TRUSSES :: **SUNDRIES**

Write for Catalogue.

SURGICAL HOSIERY CO., LTD.

Russell Street :: NOTTINGHAM

Telephone No. : 75903.

Telegrams : SURGICAL, NOTTM.

Best sellers

The public is asking
for **ZEAL**
CLINICAL
THERMOMETERS
because they are:-

GUARANTEED TO
STAY ACCURATE
CONSISTENTLY
ADVERTISED

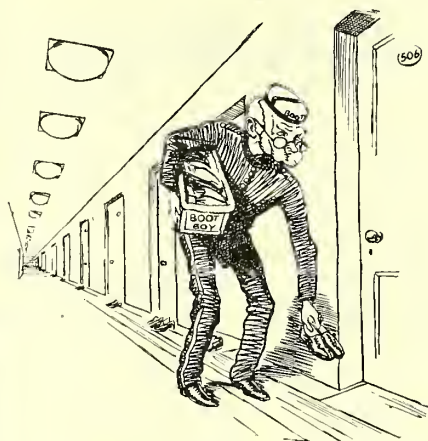
Made by
ZEAL

*-the name the
public knows.*

G. H. ZEAL, LTD.,
75 & 77, St. John St., London, E.C.1.



THE SPECIALIST!



BOOTS SIR!

... however humble the task the man who specialises on that task achieves a standard of efficiency that is beyond all question of doubting.

We have a Printing Plant that has been laid down specially to meet the requirements of the **DRUG** and **ALLIED TRADERS**.

Our Printing Staff are people who have had years and years of practical experience in the handling of every kind of *Drug, Chemical and Sundries Price Lists, Shampoo Envelopes, Cartons, Showcards, Labels, Bottle and General Wrapper Work, Booklets, Folders, etc.*

In fact, Sir, we are offering you the Services of a highly trained staff, efficient machinery and a delivery organisation that go to make the complete Specialist for the handling of your Print.

Take advantage of this and send your enquiry to

ALF HARRISON



& SONS



**CHEMISTS' AND
ADVERTISING
PRINTERS.**

BURLEY ROAD, LEEDS—4

LONDON OFFICE: SENTINEL HOUSE,
SOUTHAMPTON ROW, W.C.1

*Phone : HOLborn 9200

LET US HELP YOU TO GET
THE BUSINESS

1/6

ENLARGEMENTS

FOR 10¹/₂d.

SPECIAL OFFER DURING THE SLACK
SEASON

SPECIMENS, WINDOW DISPLAY
MATERIAL & HANDBILLS PROVIDED

Write for Details

THE
EAGLE PHOTOGRAPHIC SERVICE
CRICKLADE STREET, SWINDON

To BUYERS of TRUSSES!

The most complete up-to-date facilities for the manufacture of RUPTURE APPLIANCES of every known English and American pattern are operating at

BLACK BULL WORKS,
MARKET ROAD, LONDON, N.7

Hard Rubber, Celluloid, Leather and Mole
Covered and Elastic Band Trusses, under the

"MASTER"
BRAND
TRADE MARK



are sold in all
Markets of the
World.

"KO-RALLIUM." A new flexible covering for Steel Springs, is immune from Warping, Cracking, Shrinking or Peeling, Non-Inflammable, Impervious to Moisture, Neutral to URIC ACID Secretions. Supersedes Hard Rubber or Celluloid.

Get to know of this. It is Something Different!

Suspensory Bandages and Jock Straps

We offer distinctive lines of outstanding value. Our weaving sheds allow of all intermediate profits being passed to our customers.

Write for sample range at Special Rate, then compare.

F. SCHUTZE & CO., LTD.

Black Bull Works, Market Road, London, N.7



No. CDF 4454

Illuminated Interchangeable Sign, size 13" x 8 1/2". Blue metal frame, complete with 200 letters and figures—wired with holder and flex. Ready for immediate use. Price quoted does not include lamp.

Full illustrated list of Shopfittings No. CD 1360 free on request.

DUDLEY & Co. Ltd. 451 Holloway Rd., London, N.7
City Showrooms: 65 Fore St., E.C.

7'6

The preference of women for Southalls Sanitary Towels brings steady sales all the year round.

- "ORIGINAL," most popular.
- "CELTEX," soluble.
- "K," made entirely of absorbent cotton wool, with very soft cover.
- "COMPRESSED," for Travelling.

SOUTHALL BROS. & BARCLAY, LTD., BIRMINGHAM

SOUTHALLS
SANITARY TOWELS



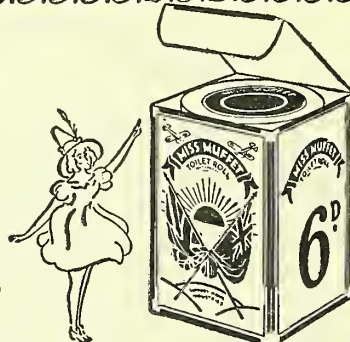
Your Wholesaler Can Supply

MISS MUFFET
TOILET ROLLS

675-700 Sheets of 100% Pure White Paper. Free from advertisement (printing ink is dangerous). Neatly reeled—well perforated—packed in dust-proof cartons.

IN CARTONS

THE MISS MUFFET TOILET PAPER CO., West Bridgford, Nott'm.





This illustrates the neat and dainty package. This product is unrivalled and merits your attention.

MINIMUM RETAIL
6D. PER BAG

THE SEASON'S BEST SELLER

Quick Sales—Big Profits

Spring Cleaning—Moth Preventives—instinctively the Housewife thinks of MOTHAKS. She knows how effective they are and how thoroughly they do their job—no need to push this unique line—simply display and MOTHAKS sell themselves. NOW IS THE TIME TO DISPLAY THEM.

Terms are especially generous. We have a very neat display stand, just the thing for a window or counter display. It compels attention and really does sell the goods.

FREE Send us a p.c. and we will gladly forward you one of the new display stands (see below) including the bag of MOTHAKS.

MOTHAKS

PREVENT ALL DAMAGE BY MOTHS

PRICES Minimum Retail Selling price, per bag of 8 6d.
Wholesale price, per dozen - - - - 4/-
3 dozen and upwards carriage paid. Packed in attractive display outers containing one dozen bags.

SPECIAL BONUS TERMS

3 bags free with orders for 6 dozen
12 " " " " " 1 gross
36 " " " " " 2 gross



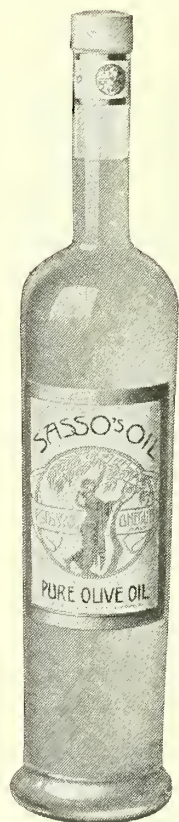
THOMPSON & CAPPER WHOLESALE LIMITED
MANESTY BUILDINGS, COLLEGE LANE, LIVERPOOL, 1

SASSO OLIVE OIL

The Standard of Quality



The best way to increase Olive Oil sales is to sell "SASSO" the brand of the world's largest producers of Olive Oil.



*Write for new season's
price list and samples.*

Producers :

P. SASSO & FIGLI

Oneglia, Italy

Sole distributors for the United Kingdom :

Fredk. Boehm Ltd.,

17, Jewry Street, London, E.C.3



An apology

Queen's Wharf,
Reading.

We, William Kingham & Sons, Vendors of Chemists' Sundries and Patent Medicines, hereby tender our humble apology to Messrs. Burroughs Wellcome & Co. for infringement of their trade mark and agree to publication of this apology.

We hereby undertake to forthwith destroy all price lists, cartons, labels or other printed matter in our possession or under our control in which the words 'Tabloid' or 'Tabloids' appear where the products of Messrs. Burroughs Wellcome & Co. are not intended to be designated.

Dated this 9th day of February, 1934.

(Sd.) Per pro William Kingham & Sons, Ltd.

George Kingham
Director.

The registered Trade Mark 'TABLOID' is an arbitrarily coined word or brand which denotes specifically "Burroughs Wellcome & Co. products." The substitution of goods of other manufacture when the word 'TABLOID' is used in ordering, is an infringement and unlawful. We prosecute offenders rigorously in the interests of prescribers, dispensers, patients and ourselves.

TRADE MARK 'TABLOID' BRAND

CASCARA SAGRADA

(Dry Extract)

Exhibits the high standard of quality characteristic of all 'Tabloid' Brand Products.

Prepared from bark which has been specially selected and matured with such care as to ensure the full therapeutic effect without tendency to gripe.

Plain or sugar-coated London Prices to the Trade (subject)

Gr. 2, bottles of 25 products, 5/5 per doz. bottles
" " " 100 " 13/6 " " "

Also in the following strengths:

gr. 1, gr. 3, gr. 4, gr. 5, 0.15 gm. and 0.25 gm.

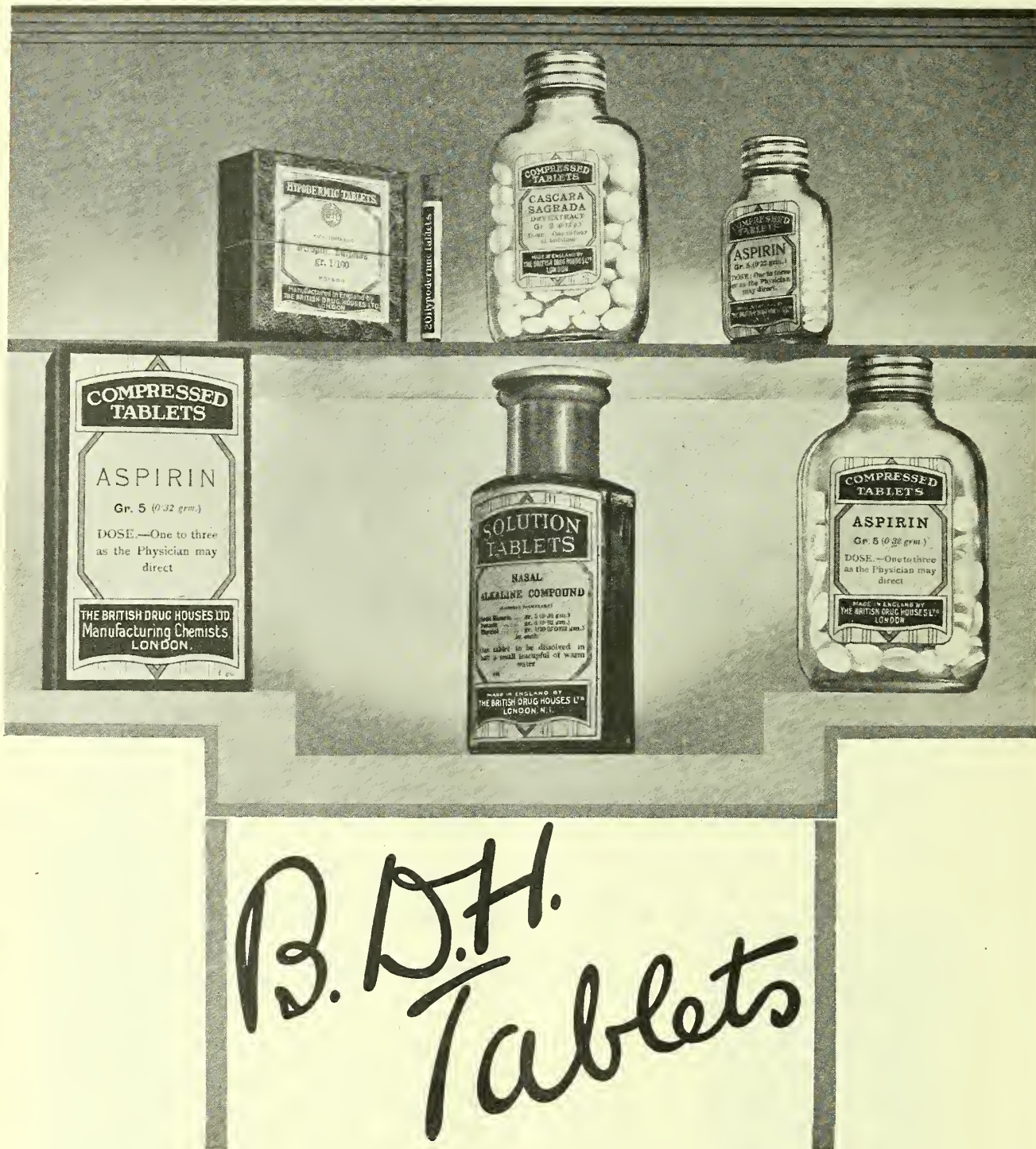
Reduced
facsimile



G 1794

BURROUGHS WELLCOME & CO., LONDON

COPYRIGHT



A uniform series of packed tablets, oral, solution and hypodermic, covering all requirements for dispensing and for retail sale. The medical man and the discriminating public will appreciate the B.D.H. guarantee of quality behind these products, which is suggested by the good appearance of the packages.

THE MORE POPULAR TABLETS ARE PROTECTED UNDER P.A.T.A. REGULATIONS.

Full particulars and quotations on request.

PRODUCTS OF THE BRITISH DRUG HOUSES LIMITED, LONDON

THE CHEMIST AND DRUGGIST

A Weekly Journal of Pharmacy, the Drug, Chemical and Allied Trades

*The official organ of The Pharmaceutical Society of Ireland,
The Pharmaceutical Society of Northern Ireland,
The Chemists' and Druggists' Society of Ireland, and of
other Chemists' Societies in Overseas Dominions*

PUBLISHED AT
28 ESSEX STREET, STRAND, LONDON, W.C.2

Telegrams: "Chemicus, Estrand, London" Telephone: Central 6565 (8 lines)

BRANCH OFFICES

4 CANNON STREET, MANCHESTER (TEL.: BLACKFRIARS 3052) 54 FOSTER'S BUILDINGS, HIGH STREET, SHEFFIELD (TEL.: 22458)
19 WATERLOO STREET, GLASGOW (TEL.: CENTRAL 2329) 372 FLINDERS LANE, MELBOURNE, AUSTRALIA
155 AVENUE DE WAGRAM, PARIS, XVII^e (TEL.: GALVANI 19-79)

CONTENTS

VOL. 120. NO. 2825

MARCH 31, 1934

| | PAGE |
|-------------------------|------|
| Association Meetings | 376 |
| Births | 361 |
| Business Changes | 361 |
| Canadian News | 354 |
| Causerie | 373 |
| Chemists | 371 |
| Chicago Exhibition | 377 |
| Coming Events | 351 |
| Correspondence:— | |
| Letters | 381 |
| Miscellaneous Inquiries | 382 |
| Coupon Trading | 359 |
| Deaths | 361 |
| Dispensing Difficulties | 355 |
| Double Acrostic | 371 |

| | PAGE |
|--------------------------------|------|
| Editorial Articles:— | |
| Developing Toilet | |
| Trade | 363 |
| Botany of Albertus | |
| Magnus | 363 |
| Festivities | 375 |
| Information Department | 362 |
| Irish Notes | 350 |
| Marriages | 361 |
| Medicine Stamp Act | |
| Appeal | 352 |
| National Pharmaceutical Union | 376 |
| New Companies and Company News | 353 |
| News of the Week | 349 |

| | PAGE |
|---|------|
| New Zealand News | 354 |
| Notes on New Shop | 356 |
| Personalities | 361 |
| "Pharmaceutical Formulas," Vol. II. | 358 |
| Pharmaceutical Society of Great Britain | 374 |
| Pharmaceutical Society of Ireland:— | |
| Council Meeting | 350 |
| PROGRESS OF PHARMACY:— | |
| Pharmacy | 364 |
| Biological Chemistry | 366 |
| Industrial Chemistry | 367 |
| Pure Chemistry and Physics | 367 |

| | PAGE |
|------------------------|------|
| Hygiene | 367 |
| Medicine | 367 |
| Optics | 369 |
| Pharmacology | 369 |
| Photography | 369 |
| Veterinary Medicine | 370 |
| Rambling Recollections | 372 |
| Retrospect | 382 |
| Scottish Notes | 350 |
| Swiss Pharmacopoeia | 370 |
| Topical Reflections | 351 |
| Trade Marks | 360 |
| Trade Notes | 360 |
| Trade Report | 378 |
| Westminster Wisdom | 351 |
| Wills | 361 |

News of the Week

Dangerous Drugs Acts, 1920-32

(From "The London Gazette," March 23, 1934.)

WITHDRAWAL OF AUTHORITY: GEORGE SANDERS

Whereas George Sanders, of 157 Ombersley Road, Worcester, being a person duly registered under the Pharmacy Act, 1868, as amended by the Poisons and Pharmacy Act, 1908, has been convicted of offences against the Dangerous Drugs Acts:

And whereas the said George Sanders cannot, in my opinion, properly be allowed to be in possession of or to supply raw opium, coca leaves and Indian hemp, nor to carry on the business of manufacturing, selling or distributing any of the drugs to which Part III of the Dangerous Drugs Act, 1920, applies:

Now, therefore, after consultation with the Council of the Pharmaceutical Society of Great Britain, and in pursuance of the powers conferred on me by No. 6 of the Raw Opium Regulations, 1921, as extended by the Coca Leaves and Indian Hemp Regulations, 1928, and by No. 7 of the Dangerous Drugs (Consolidation) Regulations, 1928, I hereby give notice that I withdraw, as from to-day's date, from the said George Sanders the authority granted by the said Regulations to persons who lawfully keep open shop for the retailing of poisons to be in possession of and to supply raw opium, coca leaves and Indian hemp, or to manufacture any extract or tincture of Indian hemp, or any preparation to which Part III of the Dangerous Drugs Act, 1920, applies or to carry on the business of retailing, dispensing or compounding the drugs or preparations to which Part III of the Act applies.

JOHN GILMOUR,
One of His Majesty's Principal
Secretaries of State.

Whitehall, March 19, 1934.

Norwich

The preliminary programme of the Congress of the Royal Institute of Public Health, to be held at Norwich from May 15 to May 20, has been issued, and may be obtained from the Secretary, 23 Queen Square, London, W.C.1. The membership fee is 21s. A lengthy list of papers by medical men and others has been drawn up. Each afternoon and most of May 19 will be devoted to excursions. A civic welcome will be given by the Lord Mayor of Norwich, and the presidential address, entitled "Progress in the Conditions of Employment in Norwich" will be delivered by Alderman Henry N. Holmes, ex-Lord Mayor of the City.

Miscellaneous

DEATH IN A SHOP.—Miss Joan Simm collapsed and died at Messrs. Boots' branch in Fishergate, Preston, her place of employment, on March 20.

BRITISH INDUSTRIES HOUSE.—The Medical Advisory Council, of British Industries House, Marble Arch, London, W.1, has been strengthened by the appointment of Mr. Hugh Macrae as honorary secretary.

WINE LICENCE APPLICATIONS.—Applications for wine licences by H. W. Osborne, Ltd., chemists, Guildford, and Rugby Co-operative Society, Ltd., have been granted. A similar application by Mr. R. Kilgour, chemist and druggist, Holmes Chapel, Cheshire, has been refused.

IN THE COURTS.—At Warrington Police Court, on March 19, Harold Pye was bound over on charges of embezzling sums of money belonging to his employers, Crosfield & Sons, Ltd.—At Southport Juvenile Court, recently, a fourteen-year-old boy was sent to a school for three years for stealing tooth-paste from the shop of

Rushtons (Chemists), Ltd., Southbank Road.—At Leeds Assizes, recently, Milton M. Hepworth, chemist and druggist, Highroad Well Lane, Halifax, was sentenced to ten months' hard labour for administering a noxious drug with intent to procure miscarriage.

PHOTOGRAPHIC DEMONSTRATION.—A meeting was held at Torquay on March 14, when Ilford, Ltd., acted as hosts. The guests included members of the P.D.A. and the P.P.A. of Torquay and district. The first part of the programme consisted of a paper read by Mr. A. Flower (Ilford Research Laboratories) on "Infra-red Photography." This was followed by an Ilford infra-red standard 35 mm. film which had been taken at the Gaumont British Studios, the first of its kind to be projected. A film was shown of the Ilford, Ltd., paper works at Park Royal. Short speeches were made by Mr. T. Midgeley Illingworth (director of Ilford, Ltd.), Mr. H. J. Kraushaar (sales manager), and Mr. G. A. Peck (advertising manager).

GROCERS AND THE PHARMACY AND POISONS ACT.—At a meeting of the Yorkshire Council of Grocers' Associations, held at Leeds on March 20, Mr. John Kerr (Leeds), referring to the Pharmacy and Poisons Act, said he had had communications from a leading member of the West Riding County Council offering any help in his power towards rendering effective the grocers' protest against the mentioned restriction of the sale of ammonia to chemists and the exclusive inspection of shops by members of the Pharmaceutical Society under the Act. The secretary reported that he had received acknowledgments of letters on the subject sent to the West Riding and North Riding County Councils. From the East Riding County Council there was a letter stating that that authority had decided not to avail themselves of the services of inspectors appointed by the Pharmaceutical Society, and were arranging for the duties to be carried out by the Council's own inspectors.

SPORTING EVENTS.—Potter & Clarke's Association football "A" XI beat Hays Wharf in the semi-final of the Glover cup—3-0; this cup is played for by the senior teams of the London Business Houses Football Association. The "B" XI played Kearley & Tonge and drew 1-1. This team is also in the running for the Third League first division of the London Business Houses Football Association. The girls' netball "A" team beat Venesta, 15-4, in the second division of the London Business Houses netball league. This team is undefeated and is top of the league. The "A" football team played Simpsonians in the London Business Houses premier division and won 12 goals to 1. The "B" team played Wallis Tin Stamping and lost 4 goals to 3 in the London Business Houses League division three. This is the first time this team has been defeated this season. The girls' netball section played Micanite and won 30 goals to 3 in a friendly match.—The Ipswich Chemists' Hockey Club, mixed team, met Bungay Waveney at home on March 7, the match resulting in a draw 1-1, the chemists trying hard to score a winning goal, but being unsuccessful. In a match with the Suffolk Regiment the men's team lost 8-1, on March 14. The Club Mixed Team met Bungay Waveney at Bungay on March 21. The chemists put up a splendid game, and beat their opponents by one goal to *nil*.

Scottish Notes

Brevities

Soap bargains are in evidence in chemists' windows in many towns.

It is reported that some retired doctors are resuming practice for private patients only.

A pharmaceutical veteran states that he will never stop counter prescribing until dispensing charges are at least doubled.

Scottish grocers have forced a new federation to combat the co-operate menace and to look after their interests generally.

The shop of R. M. Lindsay (Dundee), Ltd., chemists, 140 Albert Street, Dundee, was broken into recently, but without the loss of much of value.

It is stated that in many cases the dispensing prices charged by multiple firms are higher than those of private chemists. If this is so, it would appear that little difficulty would be experienced in fixing a minimum scale for Scotland.

Irish Notes

Pharmaceutical Society of Ireland

A special meeting of the Council of the Pharmaceutical Society of Ireland was held on March 26 at 67 Lower Mount Street, Dublin, to consider the question of reconstructing the Society's present headquarters, or alternatively to acquire new premises. Mr. P. J. Fielding (president) was in the chair, and other members of the Council present were Mr. D. Warwick, Sir Thomas Robinson, Dr. J. A. Mitchell, Miss F. M. Flood, Messrs. P. Brooke Kelly, D. W. P. Boyd, C. Cremen, J. T. Dwyer, J. Gleeson, B. P. Hickey, J. Duggan, J. A. O'Rourke and M. J. Parkes. The Council considered the matter in committee, and their decision will be announced later. In the report of the Council meeting of the Society held on March 13, the "William Corrigan" notified as dead should be William Corridan.

Brevities

Mr. Michael Kelly, Ph.C., Rosslare, co. Wexford, has been appointed a Peace Commissioner.

Mr. S. McCauley (Irish Pharmaceuticals, Ltd.) has been co-opted a member of the Council of the Federation of Irish Industries.

Cookstown Board of Guardians have accepted the tender of Adams & Bates, Ltd., Omagh, for medicines, and that of Fred Storey, Ltd., Belfast, for medical and surgical appliances and dressings.

Contracts recently placed by Government Departments in Dublin include the following:—Boileau & Boyd, Ltd., Dublin, medicines and drugs and veterinary medicines; Farren & Co., Ltd., Dublin, surgical requisites.

Tribute has been paid by the authorities of the National Museum, Dublin, to the action of Mr. Hugh Weir, M.P.S.I., Mullingar, through whose instrumentality an early bronze age food vessel found in his district was recovered for the Museum. In addition to the food vessel, Mr. Weir presented the Museum with a polished stone axe and a bronze spear-head.

At Lurgan Board of Guardians, on March 16, a letter was read from the Ministry of Home Affairs stating that they were still of opinion that a compounder for the infirmaries should be appointed, notwithstanding the Guardians' recent views on the matter. After a short discussion, Mr. John Sandford, Ph.C., Portadown, said he would undertake to do the work free until a permanent appointment was made, when the reconstruction scheme was completed. The Board, while feeling they were indebted to Mr. Sandford for his generous proposal, decided to write to the Ministry and ask that Mr. Sandford be allowed his travelling expenses from and to Portadown in connection with the work.

Belfast

Owing to the Easter holiday Belfast pharmacists were permitted to waive the half-holiday on Wednesday last, provided the employees receive two days at Easter.

We regret to learn that Mr. Fred Storey, president of the Chemists' and Druggists' Society of Ireland and ex-president of the Pharmaceutical Society of Northern Ireland, is suffering from the effects of a chill. Mr. Storey has been confined to bed for some days past, but the latest reports regarding his condition are more reassuring. At the annual meeting of the Belfast Wholesale Merchants' and Manufacturers' Association, on March 21, Mr. Fred Storey was elected senior vice-president, and in the ordinary course will occupy the presidential chair next year. Sir Thomas McMullan, Mr. H. R. Haslett, and Mr. George Wilson were elected to the General Committee. The meeting passed a resolution of sympathy with Mr. Storey.

Westminster Wisdom

Notes on Parliamentary Matters

METHYLATED SPIRITS BILL

On March 23 Miss Horsbrugh moved the second reading of the Methylated Spirits Bill (*C. & D.*, March 17, p. 289; March 24, p. 335) in a speech lasting for forty minutes. The hon. member referred to Section 130 of the Spirits Act, 1880, and gave statistics of convictions in various parts of the country for drinking methylated spirits. The motion for the second reading was seconded by Mr. Herbert Williams. Sir Wilfrid Sugden moved, and Lieutenant-Colonel Applin seconded, an amendment postponing the second reading for six months. Sir Ernest Graham-Little, M.D., replied to Miss Horsbrugh's remark that she had not had any protests against her measure. There was in that morning's issue of *THE CHEMIST AND DRUGGIST*, he remarked, a very well reasoned article protesting against the Bill. The particular hare represented by the Bill had certainly not appeared in the medical Press in the last ten years, the period during which this question had been regarded as of sufficient importance to attract general attention. The figures given by the Home Office demonstrated clearly how small was the mischief with which the Bill proposed to deal. Eventually the Bill was "talked out."

DANGEROUS DRUGS

Mr. McEntee asked the Secretary of State for the Home Department on March 22 if his attention has been drawn to the facts disclosed in an inquest at Paddington, on Saturday last, in regard to the accessibility of drugs to the general public of the nitrophenol class; and whether it is proposed to take any action in the matter.

The Secretary of State for the Home Department (Sir John Gilmour): Yes, sir. I have received a report from which it appears that this unfortunate girl died from an overdose of a drug of the class mentioned. The Poisons Board, set up to advise me under the Pharmacy and Poisons Act of last year, is actively engaged in considering the restrictions to be applied to this and other poisons, but meanwhile it is clearly desirable that this drug should be placed under the utmost restriction possible. I am accordingly in consultation with the Lord President of the Council and the Pharmaceutical Society who, until the new Act is brought into force, are the responsible authorities, with a view to its being scheduled as a poison at the earliest possible date. I am also proposing to take up the matter with the manufacturers, with a view to the adoption of any further possible precautions.

Coming Events

Tuesday, April 3

Ideal Home Exhibition, Olympia, London, W. 14. Until April 28.

Thursday, April 5

Manchester Pharmaceutical Association, Victoria Hotel, Deansgate. Annual general meeting.

Pharmaceutical Society of Great Britain, Cambridge and District Branch, Lion Hotel, at 3 p.m. Dr. H. E. Archer on "The Chemistry of the Diagnosis of Diseases."

Pharmaceutical Society of Great Britain, Harrow Branch, Gayton Rooms, Harrow. Meeting.

Friday, April 6

Edinburgh Chemists', Assistants' and Apprentices' Association, 36 York Place, Edinburgh, at 8 p.m. Debate between Dr. J. Tait and Mr. A. Currie, Ph.C.

Topical Reflections

By Xrayser

Easter in Pharmacy

usually marks the end of the winter season and the beginning of that of spring. It is a time of looking ahead and preparing for the business which the brighter days are expected to bring; and an examination of your advertisement columns in the two preceding issues indicates that many firms are already taking time by the forelock. The average pharmacist does not show much originality in choosing goods for display during the spring and summer. Preparations of sulphur, salines, sunburn lotions, foot powders; he usually rings the changes on these. It occurs to me that a careful study of "Pharmaceutical Formulas," Vol. II, would result in fresh ideas for spring and summer trade. I believe, for instance, there is much more to be done with beverages in the average pharmacy than is usually believed, and a glance through the section on this class of goods in "P.F." should prove fruitful of results. The business in this trade is passing—in many instances it has definitely passed—out of the hands of the pharmacist; but in my own business experience I have found that the public preferred to buy their "drinks" from the chemist if he was able to supply them. There are other sections of the book that should be equally productive of new ideas for spring and summer business.

I am Glad

that the agitation you started upon the urgent necessity for the exclusion of dried crude drugs from liability to the specific duties imposed on fresh-cut flowers, foliage and other horticultural produce has resulted in the issue of the necessary amending Treasury Order, with the drugs in question now liable only to the general *ad valorem* duty of 10 per cent. This will not necessarily result in much lowering of prices for the goods affected, as hand-to-mouth buying has

been taking place and large quantities of the goods have been held in bond. Business in these drugs should now flow at the usual levels, although, as you point out (*C. & D.*, March 24, p. 336), the wording of the Treasury Order may lead to further trouble. I understand that the applications made to the Advisory Committee for the total removal of the duty on certain crude drugs are still having attention.

The Address

by Mr. William Johnston on "Fifty Years' Working of the Food and Drugs Acts" (p. 330) recalls to mind many famous decisions: the address should be read and noted particularly by the younger pharmacists. The implications of the speaker's remarks are that wholesale drug houses are to-day showing greater care than ever in selling only drugs which have been tested in the laboratory; a much higher grade of imported raw material is also a feature of the altered conditions of marketing drugs and chemicals. There are few drug houses of any standing to-day where there is no analytical laboratory; many employ several highly trained and qualified analysts, whose routine work it is to examine and report upon the samples of crude drugs, chemicals and so forth which are submitted by the buying departments before a purchase is made. The address is the more interesting to me as in my early years I have been asked again and again for the old milk of sulphur, containing a proportion of calcium sulphate, "because it mixed better with water." I remember, too, prosecutions for insufficient sodium bicarbonate in soda water; in my apprentice days we made soda water of two strengths, the one containing about 5 gr. per 10-oz. bottle, the other 30 gr. I specially remember the latter because it was my duty to weigh out the bicarbonate on the old-fashioned hand dispensing scales and prepare about three dozen bottles.

Medicine Stamp Act Appeal

Important Decision

IN a King's Bench Divisional Court, consisting of the Lord Chief Justice and Justices Avory and Talbot, on March 22, Mr. William Henry Hall, an officer of Customs and Excise, appealed against a decision of Mr. Barrington Ward, K.C., the stipendiary magistrate at the Thames Police Court, in favour of Mr. Samuel Oskotsky, Commercial Road, E.1., holder of a patent-medicine vendor's licence. Mr. Hall had issued an information against Mr. Oskotsky alleging that "he did vend a packet of a certain preparation or composition to be used as a medicine or medicament for the prevention or relief of bodily disorders, which was liable to duty under Section 2 of the Stamp Act, 1802, and Schedule B, as amended by Section 11 of the Finance Act, 1915, and Section 2 of the Finance Act, 1927, to wit, a packet of Yeast-Vite Brand Tonic Tablets, without a proper wrapper, cover or label bearing the stamp with duty payable" (*C. & D.*, 1933, II, 384).

The Medicine Stamp Act, 1812 (Section 2), states:—"If any person . . . whether licensed or not, shall . . . vend or expose for sale . . . any packet . . . or other enclosure containing any of the drugs . . . preparations or compositions mentioned . . . in the Schedule annexed to this Act, without a paper cover, wrapper or label provided and supplied by the Commissioners of Stamps . . . duly stamped for denoting the duty charged on such packet . . . or other enclosure . . . the person shall forfeit the sum of £10," etc. In the special case stated by the magistrate it was mentioned that special exemptions from duty were allowed under the Medicine Stamp Act, 1812, in particular, "known, admitted and approved" remedies when sold by duly qualified chemists provided that no proprietary right is claimed therein. It was proved at the hearing of the case that Mr. Oskotsky sold a packet of Yeast-Vite Brand Tonic Tablets, and the packet did not bear a stamp or label denoting that duty had been paid. By words on the packet the contents were held out and recommended to the public by the vendors as promoting free and healthy digestion, etc., and containing health-giving vitamins in conjunction with 90 per cent. of yeast. Mr. Oskotsky was the holder of a medicine vendor's licence but was not a qualified chemist, druggist or apothecary, and the proprietors of Yeast-Vite were entitled to the benefit of the exemption from medicine-stamp duty in so far as sales by them to immediate vendors were concerned, in that they were qualified chemists, being a limited company having a qualified chemist upon the premises in which they sold the medicine.

It was contended for the appellant that the respondent, not being a qualified chemist or druggist, although he held a medicine vendor's licence, was not entitled to exemption under the Act of 1812. For the respondent it was submitted that the liability to stamp medicines and pay the duty lay upon the owners, proprietors, makers or compounders, or the original or first vendors of the medicine by virtue of Section 3 of the Medicine Stamp Act, 1802, and that the proprietors of Yeast-Vite, being the original or first vendors, were exempt from such liability to duty and that duty could not be laid upon the respondent. The magistrate held (1) that the duty to stamp the medicine was upon the first vendor and not Mr. Oskotsky; (2) that as the first vendors were exempt from the duty to stamp and were the only persons required and liable to stamp, the duty could not be laid upon subsequent vendors or upon respondent in particular; and (3) that the respondent had committed no offence under Section 2 of the Act of 1812. He dismissed the information and awarded the respondent £2 2s. and costs.

Argument for the Appellant

The Solicitor-General (Sir Donald Somervell, K.C.), appearing for the appellant, said the respondent's con-

tention was that where the original vendor was within the exemptions it franked the medicine throughout its subsequent history, and therefore any subsequent person who might sell it would not commit an offence, although he might not be a qualified chemist or druggist and although his vending might literally be forbidden by the terms of the Statute. His (the Solicitor-General's) contention was that it was only an exemption for the sale by the original vendor to members of the public or to people with the same qualifications as he had, but that if the original vendor sold to an unqualified person knowing that he was going to re-sell he must pay the duty, or if an unqualified person bought some of the medicine to sell and found the duty had not been paid he must communicate with the manufacturer and get it properly stamped and labelled. He (the Solicitor-General) could not appreciate the argument that someone who did not come within the class of people specified must be held to be within the exemption because he bought from one of them.

The respondent did not appear and was not represented.

Judgment

Giving judgment, the Lord Chief Justice said it was a perfectly clear case. The magistrate had found as a fact that Mr. Oskotsky was not a qualified chemist, druggist or apothecary; and that being so, it was apparent that he did not come within the specified exemptions from duty under the 1812 Act. He therefore came within the expression in Section 2 of the Act "If any person . . . shall vend . . . any packet . . . without a paper cover . . . duly stamped . . ." that person should forfeit a certain sum. The respondent, in order to succeed, was, his lordship thought, bound to show that he came within the exemptions; otherwise he came within the deliberately wide expression "any person or persons." His lordship thought the magistrate had misdirected himself in holding that the respondent was not guilty inasmuch as the first vendor was exempt from the duty to stamp. The question raised here was not who was exempt from the duty to stamp, but whether it was true to say that being a person not coming within the exemption the respondent nevertheless did vend a packet, or whatever it was, without a stamp. To that question there could be only one answer. Justices Avory and Talbot agreed. The appeal was accordingly allowed and the case remitted to the magistrate with a direction to find the offence proved. The Solicitor-General made no application for costs.

FIRE EXTINCTION.—"Chemistry in Relation to Fire Risk and Fire Extinction," by A. M. Cameron, B.Sc., F.I.C., has been published (price 7s. 6d.) by Pitman & Sons, Ltd., Parker Street, London, W.C.2.

APPLICATION DISMISSED.—In the Chancery Division of the High Court, London, on March 15, Mr. Justice Eve heard an application in the debenture holders' action *F. W. Hagedorn* against the *Haco Dental Co., Ltd.*, by *Ramsperger & Co., Zurich*, for an order directing the receiver appointed in the action to hand over to the applicants goods supplied to the company under contracts made before December 1, 1931, and not fully paid for, or made subsequent to that date in pursuance of an agreement then entered into between Messrs. Ramsperger and the company. Mr. Gover, K.C., appeared for the applicants, and Mr. G. O. Slade for respondents. His lordship held that the term on the invoices reserving the property to the vendors until final payment had not become incorporated in the transactions between the parties, and the application was dismissed.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office

RUSSELL LANKSHEAR & COMPANY, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of technical consultants and advisers on chemical and engineering matters, etc. Solicitors: Wingfields, Halse & Trustram, 61 Cheapside, E.C.2.

BRENTFORD SOAP COMPANY, LTD. (P.C.).—Capital £25,000. Objects: To carry on the business of soap makers, manufacturers of disinfectants, perfumery, cosmetics and other toilet requisites, etc. R.O.: 61 High Street, Brentford, Middlesex.

JEAN PERFUMERY COMPANY, LTD. (P.C.).—Capital £5,000. Objects: To carry on the business of manufacturers of and dealers in perfumes, cosmetics, soaps and all kinds of toilet requisites. Director: Walter E. Viney, 128 Ravensbourne Avenue, Shortlands, Kent.

PRENTIF, LTD. (P.C.).—Capital £500. Objects: To acquire the trade marks and name of Prentif, to adopt an agreement with W. George's Surgical and Drug Stores, Ltd., and to carry on business in surgical and medical appliances, etc. R.O.: 123/4 Newgate Street, E.C.1.

ALLUHR, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of manufacturers of and dealers in cosmetics, perfumery, toilet requisites and sundries, chemists, druggists, etc. The first directors are not named. Solicitors: Zeffertt and Heard, 17 Coleman Street, E.C.2.

ALUMINIUM SULPHATE, LIMITED (P.C.).—Capital £30,000. Objects: To carry on the business of manufacturers, importers and exporters of and dealers in aluminium sulphate and aluminium compounds of all kinds, chemical manufacturers and merchants, etc. R.O.: 95 Gresham Street, E.C.2.

ARTHUR H. COX & CO., LTD.—The annual general meeting was held at the Old Ship Hotel, Brighton, on Saturday, March 17. The chairman (Mr. Ernest Edmonds), in his report, commented upon the satisfactory total of the year's trading, which had resulted in an increased turnover during a time of great difficulty. After placing a further sum to reserve, a final dividend of $7\frac{1}{2}$ per cent. on the ordinary shares was declared, making, with the interim dividend of 5 per cent., a total for the year of $12\frac{1}{2}$ per cent., the same as in the previous year. The chairman expressed his regret at the loss of Mr. P. J. Wigginton, whose keen business acumen and genial personality had been greatly missed by the directors and staff. Following the shareholders' meeting, the chairman then addressed a gathering of nearly one hundred members of the staff, who were presented with their bonus, the business being conducted on profit-sharing lines.

WRIGHT, LAYMAN & UMNEY (1932), LTD.—Report of the directors and accounts for the year ended December 31, 1933, show that, after providing for salaries of directors, staff bonus, pensions, bad debts and depreciations, there is a net trading profit of £44,705 8s. 1d., which, with the balance brought forward of £7,033 19s. 4d., makes a total of £51,739 7s. 5d. After deducting £1,200 for directors' fees and reserve for income-tax, £6,800 9s. 2d., and the following interim dividends paid to December 31, 1933: 7 per cent. on preference shares, £19,600, and $2\frac{1}{2}$ per cent. on the ordinary shares, £1,500, there is a balance of £22,638 18s. 3d., which the directors recommend should be appropriated as follows: Final dividend of $7\frac{1}{2}$ per cent. (making 10 per cent. for the year) on the ordinary shares; transfer to reserve, £10,000, and the balance of £8,138 18s. 3d. carried forward. The second annual general meeting of the ordinary shareholders will be held at the company's registered offices, 46, Southwark Street, S.E.1., on Friday, April 6, at 2.45 p.m. We are advised that the dividend warrants on the 7 per cent. preference shares will be posted on March 29.

Private Arrangement

Conrad Charles Seward, trading as Rosmarine Manufacturing Co., 26 Blackfriars Road, Southwark, London, manufacturing perfumers. A meeting of the creditors was held recently, when a statement of affairs was submitted showing liabilities of £11,014 9s. 11d., which included £3,900 due to debtor's wife in respect of cash advanced, and there was also £5,000 owing to relatives for loans. In addition, fully-secured creditors' claims amounted to £3,900 5s. 4d., and they held securities consisting of property and a life policy amounting to £5,330. There was also a contingent liability to the value of £102 16s. 9d. in respect of bills discounted, but that amount was not expected to rank for dividend. The assets consisted of stock in trade, £400; office furniture and fittings, £100; book debts, estimated to realise £30; surplus from securities in the hands of fully-secured creditors, £1,429 14s. 8d.; and cash in hand, 2s., making total assets of £1,959 16s. 8d., from which had to be deducted preferential claims of £139 16s. 1d., leaving net assets of £1,820 0s. 7d., or a deficiency of £9,194 9s. 4d. With regard to the stock in trade, it was stated that the cost price was approximately £1,800, and consisted of packings, boxes and bottles, etc. According to trading figures submitted the loss incurred since April, 1928, amounted to £2,217, and interest repaid on loans in the same period was £3,810. The creditors resolved that the deed of assignment already executed in favour of Mr. H. B. Newton, C.A., 133 Moorgate Station Chambers, E.C.4, as trustee, be confirmed, and a committee of inspection was also appointed.

Voluntary Liquidations

Savage & Son (London), Ltd., 146 Bishopsgate, London, E.C.2, general merchants. The creditors were called together recently at the offices of Messrs. O. Sunderland & Co., C.A., 15 Eastcheap, London, E.C.3, when it was reported that the ranking liabilities were £1,131. The assets totalled £228, or a deficiency as regarded the creditors of £903. The issued capital of the company was £1,342, and the deficiency as regarded the shareholders was £2,245. The last time the company made a profit was during the year to June, 1927. Since that date losses ranging from £214 to £446 per annum had been sustained. On January 29 last an informal meeting of the creditors was held, when the directors asked for a moratorium. It was, however, decided that the directors should be allowed seven days in which to submit an offer. No such offer was forthcoming, and the company went into voluntary liquidation. A resolution was passed confirming the voluntary liquidation, with Mr. O. G. Sunderland as liquidator, with a committee. It was stated that an offer which would allow of a dividend of 3s. in the £ being paid to the creditors had been received, and it was stated that that matter would be dealt with by the committee.

Wheatleys Cash Chemists, Ltd., 54 Northgate Street, Gloucester. The statutory meeting of the creditors was held recently at 1 Barton Street, Gloucester, when the chair was occupied by Mr. A. R. Wheatley, the managing director. The statement of affairs showed liabilities of £1,707 9s. 6d., all due to unsecured creditors. The assets consisted of cash in hand, £6 14s. 6d.; stock, £1,234 2s. 6d., valued at £800; fixtures and fittings, £812 16s. 5d., estimated to produce £300; and book debts, £59 13s. 2d., estimated to realise £37 10s., making a total of £1,144 4s. 6d. After allowing £184 13s. 4d. for preferential claims, the net assets were £959 11s. 2d., or a deficiency of £747 18s. 4d., so far as the creditors were concerned. It was stated that the company was registered on October 22, 1925, with a nominal capital of £1,000. In June, 1927, the capital was increased to £1,300, and there was a further increase of capital in August, 1928, by 500 second preference shares. The total shares issued were 1,620. The shareholders had already met and passed resolutions for voluntary liquidation, with Mr. H. G. Kingscott as liquidator. The creditors decided to confirm that appointment, with Mr. A. Cripwell as joint liquidator. A committee of inspection was also nominated.

Canadian News

A New Pharmacy Bill

GREAT interest has been aroused in the Province of Quebec by a new Pharmacy Bill before the Legislative Assembly, according to a recent issue of the "Montreal Gazette." For years past the pharmacists, banded together as the Pharmaceutical Association of the Province of Quebec, have sought to obtain the monopoly of the sale of patent medicines. The main ground of opposition has been that the druggist should not complain if other shops sell salts and patent medicines, since the drug shops have also gone into businesses of other shopkeepers, notably, the ice cream business, the cigar, cigarette and tobacco business, the hardware business at times, and also other commodities. The compromise now suggested is that the druggists shall have the monopoly of selling all medicinal preparations, and in return the druggist will again become a professional man, and sell nothing but "sick room or hospital requisites, requisites for dressings, and hygiene, perfumery and toilet articles, and photographers' supplies." This is the main change asked for, but also important is the request that each branch drug store must have a licentiate in charge, who will be a member of the Association. The Association also wishes to make some changes as to its internal affairs, and starts with a change in name, asking in future it be called the "College of Pharmacists of The Province of Quebec" to be governed by a council of twelve licentiates. The fees which are to be paid to the corporation are increased. A licentiate will pay \$25 instead of \$10; an assistant pharmacist is raised from \$5 to \$10, and a student must pay \$5 instead of \$2. Another change of interest to widows and trustees in bankruptcy is to the effect that when a pharmacist dies the business may be carried on only for a period of five years instead of without limit of time, as at present.

An Important Law Case

THE Pharmaceutical Association of the Province of Quebec recently brought a case against the F. W. Woolworth Co., Ltd., for violation of the Pharmacy Act. It was alleged by the Association that the Woolworth Co. had violated the law in selling hydrogen peroxide which they claimed is a drug in the meaning of the Pharmacy Act, and the court was asked to levy a fine of \$50, payable to the Association. In defence of the action, the company admitted that it was not licensed to carry on the calling of a licentiate of pharmacy, but denied that hydrogen peroxide is a drug as understood by the Act. It was contended by the Association that hydrogen peroxide is a drug in that it contains a small quantity of acetanilide, that its label designates it for medicinal purposes and that, in conforming with the British Pharmacopoeia, it was brought within the statutory provisions of the Act. It was submitted by the defendants that this case was no longer applicable because the word "drugs" must be taken in the ordinary and popular meaning of the word. The label on the bottle, it was urged, could not constitute hydrogen peroxide as a drug, and it is not normally considered a drug. In giving judgment Mr. Justice Stackhouse said that in accepting the statutory definition of the word drug one must be guided by the ordinary and accepted meaning of the word and not as generically employed. The proper interpretation of the Act is that it prohibits the sale by an unrecognised pharmacist, of poisons and drugs and medicines which contain any of the ingredients specifically mentioned in the Act. In regard to the submission by the plaintiffs that the formula for hydrogen peroxide is found in the British Pharmacopoeia, and is therefore a drug, the Justice stated that he had carefully examined the British Pharmaceutical Codex and found therein mentioned almost every article that enters into the human body. With regard to the drug acetanilide contained in hydrogen peroxide, the quantity is infinitesimal and is

used merely for preservative purposes and would not constitute peroxide a drug. The case was dismissed with costs.

Pharmaceutical Industry

ACCORDING to a report recently issued by the Dominion Bureau of Statistics (75-3-1-34/450) production by the concerns in Canada which were engaged chiefly in making patent and proprietary medicines, pharmaceutical and similar commodities was valued at \$17,573,979 in 1932 compared with \$18,110,794 in 1931 and \$17,768,806 in 1930. Of the 151 factories in this group in 1932, eighty-six were in Ontario, fifty-one in Quebec, seven in Manitoba, four in British Columbia and one in each of Nova Scotia, New Brunswick and Alberta. Capital employed by these firms was reported at \$18,379,601, employees numbered 2,959 and payments in salaries and wages totalled \$3,833,778. Materials used in manufacturing cost \$5,595,117 and the value added was \$11,978,862. Plants in Ontario produced 63 per cent. of the Canadian output, and concerns in Quebec accounted for 29 per cent. The concerns in this industry make medicinals and pharmaceuticals as their main products but they also manufacture other lines such as toilet preparations as a minor part of their business. On the other hand, some companies which have been classified to other industrial groups make some medicinal preparations as minor products. The total Canadian production of medicinals and pharmaceuticals in all industries amounted in value to \$13,015,912 in 1932 as compared with \$13,610,975 in 1931 and \$13,931,292 in 1930. In 1931 and 1932 the Bureau has attempted to get a limited breakdown of the total output in order to show separate figures for the different classes of medicines. Most of the companies were able to give the required data, but several of the larger producers of pharmaceuticals could not make this separation and it has been necessary to include their entire output under the general item of "other medicinal and pharmaceutical preparations."

Imports into Canada of drugs, medicinals and pharmaceuticals were valued at \$2,832,025 in 1932 as compared with \$3,309,071 in 1931. About 44 per cent. came from United States, 31 per cent. from the United Kingdom, and 14 per cent. from France. Exports of medicinal and proprietary preparations totalled \$817,701 in 1932 as against \$372,969 in 1931.

New Zealand News

THE deadliness of pills of corrosive sublimate and the ease with which they could be obtained were mentioned by the Christchurch coroner, when an inquest was held recently concerning the death of a girl aged fourteen. Evidence showed that the girl died through her own act from taking pills.

AN Auckland correspondent (26/12) writes:—"After reporting over a long period that chemists in New Zealand were finding business very hard, it will be refreshing for you to read that conditions are showing some slight improvement. The country's wool sales are being very successful, and that fact has given the people some heart. This will be the last letter I shall write to you before the conclusion of the present year, and I would like to express my appreciation of the C. & D. The new tone of the business articles appeals to me and is an indication that you are fully alive to the difficulties which beset the small chemist, and are out to help him."

STOCK REMEDIES BILL.—In moving the second reading of the Stock Remedies Bill in the House of Representatives, recently, the Minister of Agriculture quoted some bad examples of the kind of fraud that has been perpetrated at the expense of farmers. The examples included the sale of "a preventive of fat lamb mortality" which was found to contain vegetable bark, common salt and ironsand; an alleged mammitis cure which consisted largely of cow manure with added peppermint; and many other examples. The Minister also quoted several cases in which exorbitant charges had been made.

Dispensing Difficulties

Notes of a Paper read by Mrs. Herbert Skinner at a meeting of the North London Pharmaceutical Association on March 20

I PROPOSE dealing first with some of the more general difficulties that crop up daily in the pharmacy, passing on later to special prescriptions that present uncertainty or difficulties in manipulation.

Saponin is useful in dispensing insoluble powders in mixtures. There are quite a number of powders that cake or fluff when mixed with water, or water and mucilage, e.g., acetylsalicylic acid. A trace of saponin is of great value in mixing this, and it is a surprise to me that no official recognition is made of this valuable addition in the B.P.C. or the National Formulary. I have found a few drops of infusion of senega a handy and economical method of introducing saponin. This should be added to a little water and mixed with the powdered acetylsalicylic acid before any mucilage is added. This also applies to many other powders, and I have found it useful with insoluble or only partially soluble liquids such as creosote and paraldehyde. A valuable formula used at the North Middlesex Hospital, which I published a few years ago, is:—

| | | | | |
|---------------|-----|-----|-----|------|
| Paraldehydi | ... | ... | ... | 3i. |
| Aq. cinnamomi | ... | ... | ... | 3ij. |
| Inf. senegæ | ... | ... | ad | 3ss. |

Saponin is also invaluable in aiding the suspension of wool fat. In a note in the *C. & D.* the problem of the following prescription was solved by adding 45 gr. of saponin:—

| | | | | |
|------------------------|-----|-----|-----|-------------|
| Wool fat | ... | ... | ... | 2½ oz. |
| Glycerin | ... | ... | ... | 2½ fl. oz. |
| Tr. of benzoin | ... | ... | ... | 1½ fl. oz. |
| Mucilage of tragacanth | ... | ... | ... | 6 fl. drms. |
| Water | ... | ... | ... | 18 fl. oz. |

But in my opinion the amount of saponin is too much.

The preparation of mucilage of tragacanth in bulk often gives a somewhat uncertain result. Lumps have been known to occur when the official methods are used. My own method is to use a dry bottle that will hold rather more than the quantity required, put the spirit into the bottle and shake up, washing the sides. Then rapidly drop the powdered gum tragacanth into the bottle and shake up again. Rapidly pour the water into the bottle and shake immediately—speed is essential throughout. Glycerin can be used instead of spirit, and has been found more satisfactory.

Mucilage is often prescribed in mixtures containing light powders when it is not necessary, and it is well when possible to make this known to the prescribers; a more satisfactory mixture can be made without it.

The preparation of granules often presents difficulties to the inexperienced. They cannot be made from a recipe, but need experience in the manipulation. (The directions of the new British Pharmaceutical Codex were read.)

Mercury ointment presents difficulties, and it has been pointed out by Mr. R. E. Hunter, Ph.C., how much more satisfactory wool fat is in place of suet. He recommends as a working formula:—

| | | | | |
|----------------|-----|-----|-----|---|
| Mercury | ... | ... | ... | 1 |
| Wool fat | ... | ... | ... | 1 |
| Benzoated lard | ... | ... | ... | 6 |

The preparation and storing of solutions for dispensing appears to present difficulties to the retail chemist. Properly prepared solutions should be perfectly accurate, and it is of importance to make them of sufficient dilution that there may be no deposit on a cold day. In solutions that are too strong, this deposit may not be redissolved with a rise of temperature. Any stable salt, if properly diluted, should be accurate for dispensing purposes. But it must not be forgotten that a time limit is a factor in dealing with solutions, and they should certainly not be kept more than a fortnight if accuracy is to be maintained. Mixed powders in bulk, such as zinc oxide and starch, or bismuth carbonate,

sodium bicarbonate and chalk, are far more successfully incorporated if passed through a suitable sieve. The bulk should be weighed after mixing.

Coming to prescriptions presenting difficulty that have been brought to my notice, an interesting one is "Glucose 10 per cent. in liquid paraffin." No solution can be effected, and the pharmacist dealing with it solved the problem by using powdered dextrose. The next is:—

| | | | | |
|------------------|-----|-----|-----|------|
| Calaminæ præp. | ... | ... | ... | 3ij. |
| Ung. zinc. oxid. | ... | ... | ... | 3ij. |
| Carron oil | ... | ... | ... | 3ij. |

The water is thrown out, the formula proving quite incompatible.

| | | | | |
|----------------------|-----|-----|-----|-------|
| Argent. nit. | ... | ... | ... | gr. ½ |
| Ac. hydrochlor. dil. | ... | ... | ... | ℥iij. |
| Syr. simplicis | ... | ... | ... | ℥xx |
| Aq. chlorof. | ... | ... | ... | 3j. |

Silver chloride would be precipitated. The doctor, when approached, said she had no intention of giving the chloride and cancelled the prescription.

| | | | | |
|----------------|-----|-----|-----|------|
| Ac. acetic | ... | ... | ... | ℥xxx |
| Paraff. mollis | ... | ... | ad | 3iv. |

In this case it will be found that the addition of adeps lanæ 3i gives a satisfactory result.

Then there are two prescriptions which are, I suppose, intended to form a cream:—

| | | | | |
|-------------------|-----|-----|-----|------|
| Liq. picis. carb. | ... | ... | ... | ℥x |
| Lanolini | ... | ... | ... | 3ss. |
| Zinc. oxid. | ... | ... | ... | 3ij. |
| Liq. calcis | ... | ... | ad | 3j. |

This appears to be incompatible. Rub down the zinc oxide with some of the lime water, slowly add to the lanoline already rubbed up in a warm mortar, add the liquor picis carb., and make up to volume with lime water. Quite a presentable preparation results. The other one is:—

| | | | | |
|----------------------|-----|-----|-----|---------|
| Zinc. oxid. | ... | ... | ... | 3v. |
| Adipis lanæ (anhyd.) | ... | ... | ... | 3ij. |
| Ol. amygdalæ | ... | ... | ... | 3v. |
| Ichthyol | ... | ... | ... | gr. 160 |
| Aq. calcis | ... | ... | ... | 3v. |

Triturate in a warm mortar the 2 oz. of adeps lanæ with 2 oz. of the oil; add the ichthyol and mix well. In another mortar triturate the zinc oxide with the remainder of the oil and all the lime water. Then mix the two together and stir into a cream. The ichthyol may rise to the surface but can easily be reincorporated with a gentle shake. Now we come to two prescriptions for pills, each of which presents a problem.

| | | | | |
|--------------------|-----|-----|-----|--------|
| Zinc. valerian. | ... | ... | ... | gr. j. |
| Menthol | ... | ... | ... | gr. ½ |
| Hydrarg. subchlor. | ... | ... | ... | gr. ½ |
| Zingiberis | ... | ... | ... | gr. ½ |
| Excip. | ... | ... | ... | q.s. |

It is the excipient that is going to make the difference here. Extract of gentian might be useful, or, as has been suggested to me, soap. Here is another posser:—

| | | | | |
|-------------------|-----|-----|-----|--------|
| Terebinth. Chian. | ... | ... | ... | gr. 2 |
| Ext. glycyrrhizæ | ... | ... | ... | gr. 1½ |
| Sulphur. ppt. | ... | ... | ... | gr. ½ |

A young chemist I showed this prescription to said: "The answer is 'Out of stock; try Mr. Smith down the road.'" This may be good enough for the younger generation, but it is not the way to make money out of pharmacy.

A prescription sheet for one patient which was received the other day read as follows:—

- (1) Roboleine ... 3i t.d.s., mitte 1 lb.
- (2) Phytin ... 40 tab. j.t.d.s.
- (3) Evipan sodium One tablet at night.

Mitte 25. Non repet.

This type of prescription is costly and may lead to waste.

Notes on the Design of a New Chemist's Shop

By the Architects, Nuttall Smith and David Booth, A.A.Dip., A.R.I.B.A.

FROM an architectural point of view most chemist's shops suffer from lack of unity and cohesion in the design. The fittings are often unnecessarily complicated with projections, cornices, mouldings, ornament; the masses of goods displayed, although often in individual groups interesting, serve only to increase the general feeling of distraction and lack of order. In this respect the old-established pharmacies which have made few concessions to modern ideas of display and salesmanship and which one finds, for example, in the West End of London are sometimes more satisfactory than many newer premises which have been obliged to brighten their interiors and have done so in ways which the old-fashioned pharmacist and the architect from different points of view deplore.

The architectural problem, in this chemist's shop at Cowley, a suburban district of Oxford, was to provide for the requirements of the chemist within a constricted space and within reasonable limits of cost; and Miss Hawes, whose first business this is, wished to retain the slightly reticent, dignified atmosphere of the professional pharmacy and yet to make the place attractive to the lower middle-class and working-class people who are the bulk of the customers, by avoiding the sombre, slightly dingy effect which is characteristic of the old-established business and is produced perhaps by the unrelieved use of french-polished mahogany and lincrusta paper.

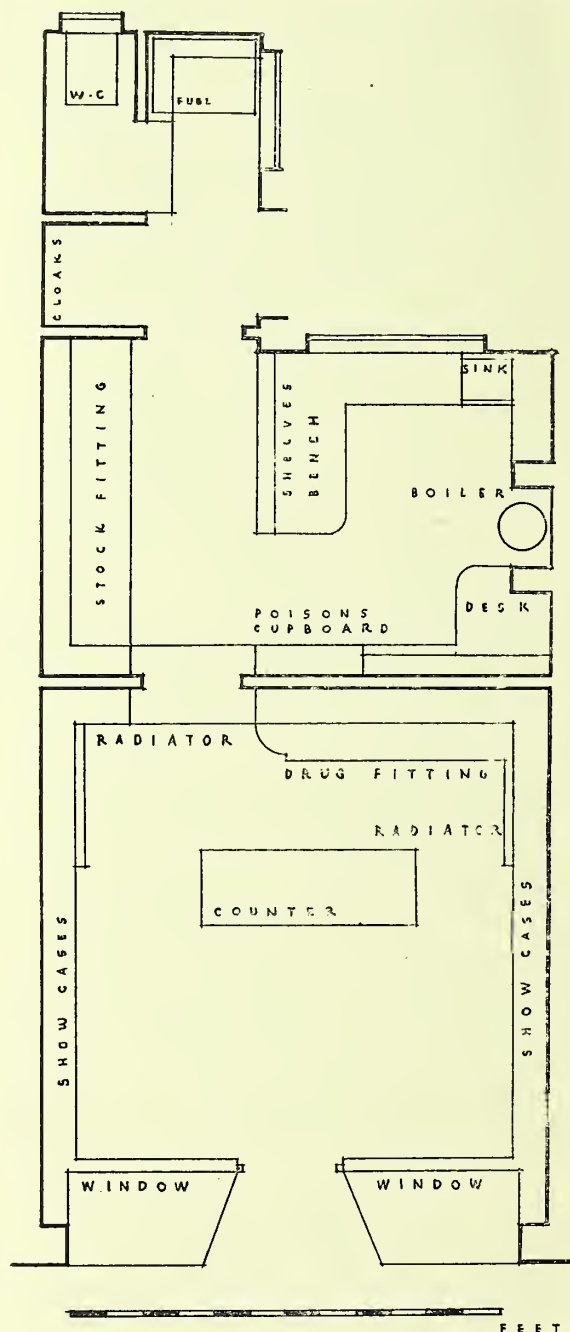
In the front shop it was found that the simplest arrangement of wall fittings and counter was the most satisfactory, in which the glazed wall cupboards serve both for stock storage and display; the stock itself in neat rows providing a more effective show than the usual display tables, silent salesmen and stands on which goods are usually shown in picturesque groups with showcards and coloured paper. In order to obtain as spacious an interior as possible, the wall cases, shelving, drug fitting and counter are designed on a repeating rectangular unit, and the radiator screens with a simple pattern of large circular spots are intended to provide a contrast to the main system of rectangles which forms the pattern of the walls. The woodwork is of unstained oak, the back of the fittings and the wall glossy white paint, the ceiling paper dull blue with white stars, the floor of dark brown cork tiles; a colour scheme light and cheerful enough, but still simple and arranged in sufficiently large areas of colour to make an unobtrusive but firm background for brightly coloured packages and bottles.

The design of details in this shop does not depart far from the general practice of chemist's shop fitting. The drug fitting is perhaps considered no longer essential in the modern pharmacy and could be superseded by cupboards and shelves or trays for small packed goods; but the traditional fitting is still useful, and to the architect at least the mass of small drawers behind the counter, besides being rather pleasant to look at, is a most essential part of the chemist's shop, together with the shop rounds and the carboys, and should be abandoned only with reluctance. The space over the door is eventually to be fitted with a synchronous electric clock and lettering.

The layout of the back room was determined by the positions of the doors, the window, the fireplace opening and flue, and is divided into two by the dispensary fitting; one part is the dispensary, the other becomes passage way and stock fitting. It has been necessary to fit a great deal of accommodation into a very small area, but the working space remains large enough to accommodate two workers. The woodwork and walls are painted white, the bench top is of East Indian teak and the floor covering Cellulin, a material similar to linoleum.

Although in this case the dispensary is perhaps only unusual in its compactness and does not represent any advance in planning, one feels that the dispensary is the weakest and most neglected part of the average pharmacy plan. In planning the dispensary it is necessary to study the circulations carefully (for example, the route

of the prescription received in to the finished bottle going out), and to plan so that unnecessary movements are eliminated and the various parts are arranged on a rational system of continuity. It is possible that careful research into the planning of the dispensary would be



amply repaid by economy in working; this suggests a line of inquiry in which the pharmacist, the architect and the equipment manufacturer could collaborate, perhaps with a view to producing standardised dispensary "units" on the analogy of recent work on minimum kitchens.



Top and centre : TWO
VIEWS IN THE PHAR-
MACY OF MISS
HAWES AT COWLEY
OXFORD,

Below A CORNER OF
THE DISPENSARY

"Pharmaceutical Formulas," Vol. II

Reviews and Appreciations

By Mr. William Kirkby, M.Sc., F.C.S., Ph.C., President of the British Pharmaceutical Conference, 1918-19

Although Charles Lamb reckoned "scientific treatises" among the books that are not books, it is hardly likely that he would succeed in resisting the appeal of this volume, which is so full of the most varied human interest. The attraction of recipes of all kinds must be great, otherwise one cannot understand why the editors of so many of the large newspapers give columns to teaching their readers how things are made and of what they are composed. This is an early phase of the life of human beings—to see how the "wheels go round." There are very few people who lose this desire—that is, if they are normally intelligent.

This abundant volume, almost bursting with the pemmican of useful information for the chemist, does not permit of being treated simply as a collection of recipes. It is a sort of epitome of the multifarious character of the pharmacist's business. It displays the man himself as qualified to speak of, and to deal in, almost every requisite for the smooth running of the daily life of all individuals, men and women—particularly women. The ninth edition was published nearly twenty years ago. In the intervening time *THE CHEMIST AND DRUGGIST* has been keeping its readers informed as to the week-by-week progress made in the composition of the steadily growing number of preparations the pharmacist is required to supply. How great is the accumulation of formulas is shown by these figures; the first volume, treating of medicaments, contained over 18,000 entries in the index, and this second volume of formulas of a miscellaneous character contains between 5,000 and 6,000. The Editor, Mr. G. P. Forrester, does not remark in his brief preface upon the great amount of work involved in selecting the recipes suitable for the book; but there are numerous notes and observations in his pages to show how wide is his knowledge of practical pharmacy and how extensive is his acquaintance with similar literature throughout Europe and the United States. The proof of the value of it will be found in the results obtained by the use of its formulas; for it is the expert alone who can contrive that the ingredients produce the desired result.

A consideration of the table of contents shows that to "Toilet Preparations," including toilet powders, hair preparations, dental preparations and perfumes about 420 pages are allocated. This is not really remarkable, because it appears that 75 per cent. of the value of a chemist's sales consists in such articles. The other sections may be gathered into groups:—Household requisites, which include sauces, flavouring preparations, cooking adjuncts generally, foods and their preservation, cleaning materials and polishes of all kinds for the house and the motor car, together with an excellent treatise on soaps and soapmaking. Lozenges, with pastilles and cachous, constitute an interesting series of formulas with some historical matter, especially in respect of cachous. It may be pointed out that there is an earlier reference to cachous than that referred to. William Salmon ("Polygraphice," 1701) wrote: "To rectify the Breath when it smells of anything that is eaten [for once in a way he was tactful]—you may chew the *Perfumed Grains of Catechu*." In this we find the meaning of cachou. Then there follow sections dealing with varnishes, lacquers and adhesives; writing materials of all kinds; all the requisites for agricultural and horticultural work and for the treatment of live-stock and the extermination of vermin. There are forty-five pages given to every branch of photography; sixty-one to beverages, including salines and cordials, together with the particulars of the conditions under which they may be manufactured; and there are over fifty pages of miscellaneous matters of the most varied kinds. This last portion is most interesting; it contains information as to how to clean marble tombstones, to make complexion clays and

mud packs, to make grip wax for golf clubs; preserving fish and snake skins and many more similar problems are dealt with.

Two or three of the subjects strike one as worth special mention because they are illustrative of the way in which twenty years' experience in this field of knowledge has been concentrated and enriched with the latest researches in every department. The thirty pages of cleaning materials and methods of stain removal are a valuable chapter wherein full particulars of the properties and efficiency of the newer solvents are given and the best means of employing them. The chapter on vinegars is an excellent summary respecting the article itself and the Ministry of Health Regulations. To conduct a pharmacy with such a handbook on one's desk is to do so with the most perfect assurance that the needs of every inquirer can be met. The picture it presents is a revelation of the startling changes in the character of the business sustained during the last twenty years. The publishers, printers and binders are to be congratulated on the support they have so well given to the Editor.

By Mr. E. C. Cripps, M.P.S.

This book fills an undoubted need, for there is no collection of recipes to be found in the pharmaceutical library at the present time which contains within its covers such a number of formulas of articles which the pharmacist may be called upon to supply, often at a moment's notice. The formulas in this volume are not strictly pharmaceutical; these are to be found in Volume I; rather are they recipes for a host of preparations which custom and usage decree should be obtained from the pharmacist, although many other traders will find them of great value.

The need for such a book as this has grown steadily since the war; it may be said, for instance, that the growth of the trade in perfumes and toilet preparations has mainly developed since then, and this section in the book under review is a large and comprehensive one reflecting the extraordinary expansion of this type of business. Unlike many books of this type, which contain numbers of formulas only, "Pharmaceutical Formulas" has a well-written and, in some cases, an exhaustive description of the particular class of goods for which the formulas are given, with valuable hints upon the best methods of using the recipes and choosing the ingredients. Thus, no fewer than ten pages are devoted to introductory remarks upon face powders, and eight pages to preparations for the hair, in which are found short descriptions of diseases of the head and scalp, with several pages upon the pathological effects of hair dyes. There are twenty pages of descriptive writing on artificial and synthetic perfumes, and even vinegars are described in several pages. There is a good deal of information upon beverages, particularly aerated waters; this includes the Regulations of 1921, a subject quite foreign to the usual collection of formulas. These illustrations will give some idea of the wide scope of the book and its varied appeal to the man behind the counter, as well as to the manufacturer and the wholesaler.

As already indicated, toilet preparations are given full prominence. There is a useful section on preparations for the bath; the inclusion of reducing bath salts and oxygen foot bath powder proves that the subject has been brought to date. Depilatories is another section which should be applied to frequently; there is a needed warning on the use of thallium acetate as the active constituent in a depilatory. As might be expected, face powders and compacts are dealt with fully. There seems no doubt that farinaceous powders as a basis for these preparations are definitely out of fashion; in their place are being used powders of the type of Osmo-kaolin—which, by the by, is a trade mark, a fact that may be indicated in future editions of the book. Perfumes and

colours for face powders receive considerable attention; for instance, some indication of the range of perfumes of the rose and jasmine types is given in two tables on pages 18 and 19. Hand preparations form another section of interest and include those for use in colouring and polishing the nails. This is followed by a collection of most useful formulas for skin creams and lotions. There seems no doubt that the most popular and most successful formulas for cold creams are those of the wax and liquid paraffin type. The "sheen" which is so attractive in face creams is explained. Perhaps no section of beauty culture preparations has grown so quickly as that comprising skin lotions, massage creams and the like. Formulas for numbers of these are given; summer preparations, both for protecting from sunburn and producing it artificially, are also to be found. One notes in the section on smelling salts a statement regarding the use of sponge as an absorbent of the ammonia and perfumes. Sawdust may be recommended as perhaps equally good.

It is noted that in the section dealing with preparations for corns and warts salicylic acid still holds the field; in the next edition it would be well to include a few more formulas for soft corns, as often these are more troublesome and certainly more painful than hard ones. The sections on preparations for the hair are full and contain a wealth of information for those chemists, an increasing number, who have added hairdressing saloons for ladies and beauty parlours to their businesses. It may be suggested that the formulas for waving and setting lotions and the details of their use, with the apparatus designed for the purpose, should make an appeal also to hairdressers; certainly the subject is dealt with in a most informative manner. The information on the pathological effect of hair dyes, already alluded to, should be carefully noted by pharmacists.

Perfumes cannot be dealt with here—they would require a notice to themselves; the same careful and exhaustive study of the subject has evidently been made here as with all others included in the book; the section

(close on one hundred pages) can be regarded as a treatise, up-to-date and fairly exhaustive, on this increasing department of the pharmacist's business. It will appeal to him as also to the manufacturer. Pastilles, lozenges and boiled sugars are obviously dealt with from the retailer's standpoint rather than the manufacturer's. The five-spouted ladle, for instance, is never used to-day on a large scale, the starch moulds being filled by metal pipettes which deliver exactly the quantity required. It is suggested that in the next edition a few more formulas for sweets containing glucose should be added.

The introduction to the section on horticultural and agricultural preparations is timely. There is no doubt that pharmacists have only themselves to blame if they allow the business in these goods to go elsewhere. There is little trouble in handling them; the profit margin, although not generous, is satisfactory considering the ease in selling; and the chemist is the right man to do the work. In passing it should be noted that derris powder, as sold to-day, is standardised. The section on photographic formulas is one of the most interesting in the book. Such a collection of recipes of all makes of plates, papers and films is probably unique; and this will be appreciated, not only by pharmacists, but by professional photographers as well. The appendix contains most useful information, and the index is a key to the contents of the book as is also the classified list of subjects at the beginning of the work.

The extraordinary variety of the contents of "Pharmaceutical Formulas" should make it, if not the most frequently used book (this honour is usually enjoyed by the B.P.), at least amongst the first two or three most popular books in the pharmacist's library. Hardly a day passes in the average pharmacy when such a book is not required. The compiler is to be congratulated upon having produced a work which in its wide scope is a faithful mirror of the needs of the pharmacist, outside the strictly pharmaceutical books. As an investment it will yield dividends from the day it is first purchased.

Coupon Trading

By Manufacturer

ALL who are interested in trade organisations, and particularly those whose efforts have been directed towards the beginning and maintaining of such, must admire the wide and far-reaching scheme which has been devised by the Tobacco Trade Association to abolish coupon trading. What particularly strikes one is the spirit of unity that must have been evinced by all the interested firms. Where can such a spirit be found to-day in the drug trade, either wholesale or retail? It can be stated with truth that there has never been less unity amongst both sections of the trade than there is to-day.

Muddling Along

The drug trade does not know where it is going; it is only muddling along hoping to get somewhere eventually and that ultimately good will emerge from chaos. The situation is surely serious enough to wish for the advent of a Mussolini to tell us what to do and how to do it. The present state of affairs is not due to a lack of organisations. On the wholesale side there are such bodies as the Wholesale Drug Trade Association; on the retail side the Pharmaceutical Society and the National Pharmaceutical Union. All are working along what may be termed, broadly, educational lines: the improvement of business conditions, the dissemination of knowledge regarding the trade, the training and examination of candidates for carrying on the retail distribution of drugs. The question is debatable whether organisations to-day are not sufficient for our needs for many years to come, and whether too much is not expected from them, forgetting that they can only function properly when the members are all imbued with, and work for, the

ideals for which they all stand. In pharmacy, as a whole, at the present time each man's hand seems against his fellow's.

Shifting Prices

Nowhere is this shown more than in the question of prices; I am not alluding now to the prices of proprietaries, which are, on the whole, fairly looked after, but to the prices charged by the wholesaler and retailer for crude and manufactured drugs which, after all, are the basis upon which the trade rests and will rest for many years to come. Wholesale list prices of drugs have little meaning to-day; their chief function seems to be the fixing of the N.H.I. tariff prices; it is well known that a large volume of business is done at prices well below the list level. Some retailers, instead of accepting their good fortune with gratitude, play still further one wholesaler against another, get still lower prices, and, in addition, start "cutting." If this condition develops (and at the present there seems no likelihood of any check) pharmacy on the marketing side, and for its staple products, will be in a sorry state; in some sections of the pharmacist's business this disintegration is already active.

What will save the situation? Not organisations altogether, certainly not legislation; it is probable that the Poisons and Pharmacy Act, now partially in force, will benefit officialdom only; it is not likely to put much money into the pockets of the trade. Loyalty and unity can yet save the drug trade from gradual disintegration, but the way to that salvation must be through a certain measure of sacrifice on the part of all. It is not the purpose of this article to indicate how this can be accomplished, but to point the way only.

Trade Notes

H. R. NAPP, LTD., Clement's Inn, London, W.C.2, have been appointed distributors of Sanocrysin and Oleo-Sanocrysin.

COTY NOVELTY.—Coty (England), Ltd., Coty House, 3 Stratford Place, London, W.1, have sent for our inspection a novelty in the form of a counter display



box holding twelve cream containers for the handbag. Messrs. Coty state that this new line has been very carefully studied to be attractive and practical. Each box is wrapped in cellophane, which ensures that the possibility of the cream drying from exposure

will be obviated, and the cream will be kept pure and clean. Over the cream itself is a thin sheet of paper which has been cut in such a way as to allow a small tongue to protrude from the side of the box, thus enabling the cover to be peeled off easily when the box is opened.

ROZALEX is the name of a preparation for rubbing on the hands to prevent grease or dirt coming in contact with the skin. It is supplied by Rozalex, Ltd., Yorkshire House, Cross Street, Manchester.

TASTELESS Extract of Cascara is the title given to a palatable liquid preparation of this drug which is being supplied by Pharmetics, Ltd., Durham Road, Holloway, London, N.7. The product is devoid of bitterness and is inexpensive.

ESTERSIL.—Johnson & Sons, Manufacturing Chemists, Ltd., Hendon, London, N.W.4, are making a fine chemical called Estersil for use against rheumatism and similar complaints. This preparation, which is supplied in 2-oz. bottles, is readily absorbed by the skin and leaves behind a lavender odour. It does not cause irritation.

EASTER HOLIDAYS.—In addition to the wholesale houses referred to in last week's *C. & D.* (p. 325), the following have informed us that they will be closed as mentioned:—Hirst, Brooke & Hirst, Ltd., Leeds, March 30 to April 2 inclusive, and on Tuesday afternoon, April 3; Matthews & Wilson (1931), Ltd., London, S.E.1, from Thursday night, March 29, until Tuesday morning, April 3; William Ransom & Son, Ltd., Hitchin, from Thursday night, March 29, until Tuesday morning, April 3.

SADKO BEAUTY PREPARATIONS, LTD., 475 Oxford Street, London, W.1, have available the display material



and literature shown in the accompanying illustration. The screen measures 19½ in. by 15 in.

"CHEMISTRY IN THE GARDEN" is the title of an informative booklet published by Tomlinson & Hayward, Ltd., 51 Newland, Lincoln. Copies of this publication will be sent to chemists on request.

HIRST, BROOKE & HIRST, LTD., Sheepscar Works, Leeds, inform us that they have introduced a new pack (in blue and gold) for their B.P. kaolin poultice, while the addition of the handle to the tin makes it convenient in use.



NIC-O-CIN, LTD., Kingsbury House, King Street, St. James's, London, S.W.1, state that their product Nic-o-cin is a harmless antidote to the after-effects of smoking. It is supplied in two sizes and there is plenty of display material available. Considerable publicity is being given to this preparation at the present time, the media employed for this purpose including, in addition to the Press campaign, Radio Luxembourg every Sunday from 5.45 to 6 p.m.

THE CORONET CAMERA CO., 310 Summer Lane, Birmingham, 19, are placing a new ciné camera (to be known as Model B) on the market. Chemists who have the old model in stock can exchange, provided it is still in new condition, on the payment of the difference in price less the usual discount. Further particulars are obtainable from the distributors, Thomas Christy & Co., 4 Old Swan Lane, London, E.C.4.

Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1934, p. 304.

(From "The Trade Marks Journal," March 21, 1934.)

"DERVITE"; for chemicals (1). By O. Wilkins & Co., Ltd., 83 Siddals Road, Derby. 547,464.

"MUSTO"; for medicated bath salts (3) and for toilet bath salts (48). By W. Fletcher, 5 Rampayne Street, Vauxhall Bridge Road, London, S.W.1. 545,904. (Associated.)

"WINTASUM"; for medicated skin preparations (3). By W. T. Sprigings, 293 Wallasey Village, Wallasey, Cheshire. 547,242.

"CREMOL BRAND" with design of baby (Clifford Shelley) holding bottle and with words "Got It"; for an external lotion (3). By S. Shelley, Ltd., 83 Market Place, Bilston, Staffordshire. 547,418. (Associated.)

"GOOD NIGHT NURSE"; for an ointment (3). By H. F. Rhodes, 25 Newington Green, London, N.16. 548,046.

"PROTEX"; for a vegetable flavouring (42). By Fredk. Boehm, Ltd., 17 Jewry Street, London, E.C.3. 546,098.

"BARLOVA"; for a beverage preparation (42). By Nobby's Products, Ltd., The Maltex Factory, Hyde, Cheshire. 547,370.

"LESCOL"; for food substances (42). By the London Essence Co., Ltd., 53 Glengall Road, Peckham, S.E.15. 548,398. (Associated.)

"MELEMDA"; for soap (48). By C. C. Goodwin, Ordsall Lane Soap Works, Manchester. 547,255.

"ELASTO"; for perfumery, etc. (48). By the New Era Treatment Co., Ltd., Cecil House, Holborn Viaduct, London, E.C.1. 548,081. (Associated.)

APPLICATION AMENDMENT

According to "The Trade Marks Journal" of March 21, 1934, the specification for "DYMUTH" in Class 11, No. 546,932, by Dymuth, Ltd., has been amended to "Bandages (medical and surgical) and binder belts."

Births

Notices for insertion in this column must be properly authenticated.

HALL.—At Elmwood Nursing Home, Sudbury, Middlesex, on March 20, the wife of Stewart Hall, chemist and druggist, Greenford, of a son.

LEVER.—At Merehall Pharmacy, Bolton, on March 23, the wife of H. N. Lever, chemist and druggist, of a daughter.

Marriages

FRANKS—COLES.—At Babbacombe, Devon, on March 21, Harry Thomas Franks, chemist and druggist, to Kathleen Coles.

Deaths

BRIGGS.—Recently, Mr. Herbert Briggs, chemist and druggist, Horbury, Wakefield. Mr. Briggs qualified in 1910.

MARSHALL.—On March 10, Mr. Arthur Austen Marshall, chemist and druggist, 14 Sun Street, Waltham Abbey, aged sixty. Mr. Marshall was W.M. of the Monkhams Lodge and a member of the local chamber of trade.

MARTINDALE.—At 22 Chatsworth Road, Brondesbury, London, N.W.2, on March 23, Isabel Mary, widow of Mr. W. Harrison Martindale, Ph.D., Ph.C., F.C.S., late of 12 New Cavendish Street, W.1.

PILKINGTON.—At Buxton, recently, Mr. William Pilkington, Ph.C. Mr. Pilkington passed the Major examination in 1890.

SHIPSTON.—In a London nursing home, on March 20, Mr. Charles Henry Shipston, a director of Fison, Packard & Prentice, Ltd., manufacturing chemists, Bramford, Ipswich, aged sixty-eight.

SIMM.—At 55 Kenyon Road, Wigan, on March 9, Mr. James Simm, for over forty years in business as a druggists' sundriesman at 53 Scholefield Lane, Wigan, aged sixty-six.

Wills

MR. JOHN BORROWS WALTON, 116 Robson Street, Liverpool, chemist and druggist, who died on October 11 last, left £2,439, with net personalty £372.

MR. DAVID CRAWFORD, The Firs, 2 Buchanan Drive, Rutherglen, Lanark, chemist and druggist, who died on January 4 last, left personal estate in Great Britain valued at £5,209.

MR. ROBERT MARTIN JACK, 40 Queensborough Gardens, Hyndland, Glasgow, chemist and druggist, who died on November 12 last, left personal estate in Great Britain valued at £6,387.

MR. ALEXANDER LLOYD BELL, The Chimes, 45 Spur Road, Orpington, Kent, director of the Ilex Supply Co., Ltd., manufacturing perfumers, of Gray's Inn Road, W.C.1, who died on February 9 last, left estate gross value £1,780, with net personalty £1,044.

MR. WILLIAM HARRISON BROOKS, L.S.A., 44 Breakspears Road, Brockley, Kent, for many years proprietor of Brooks Drug Stores, 509 New Cross Road, S.E.14, a member of the Deptford Borough Council from 1906, died on January 22 last, aged seventy-two, leaving property of the value of £25,082, with net personalty £20,172.

Personalities

MR. M. E. MURRAY, chemist and druggist, Felixstowe, has been elected vice-chairman of the local chamber of trade.

MISS L. M. HUMFRESS, chemist and druggist, Ipswich, was a prize-winner at the recent exhibition of the local photographic society.

MR. S. ROYCE, Ph.C., Radcliffe-on-Trent, who formerly conducted a school of Pharmacy at Nottingham, slipped down some steps recently and broke his leg. He is progressing favourably.

MR. JOHN RENNIE, M.P.S. (W. B. Cartwright, Ltd., Rawdon, Leeds), was returned at the head of the poll, for the fourth time in succession, at the recent urban district council election.

MISS GWYNETH WILLIAMS, M.P.S., Llanwrtyd Wells, who is in business at Llanwrtyd Wells with her father, Mr. D. I. Williams, J.P., M.P.S., has been appointed a member of the Joint Committee, Mid-Wales Counties Mental Hospital. Mr. Williams was recently re-elected a member of the Breconshire County Council.

THE American Pharmaceutical Association has awarded the Remington medal, which is conferred for distinguished service to pharmacy, to Sir Henry Wellcome, LL.D., F.R.S., founder of the Wellcome Research Institution and head of Burroughs Wellcome & Co., London, E.C.1. Sir Henry Wellcome has established several scientific research laboratories and research museums which are co-ordinated under separate and distinct direction, notably the Wellcome Research Institution, Euston Road, N.W.1.

Business Changes

MR. WALTER KIRKHAM, chemist and druggist, is opening a branch at 258 Crookes, Sheffield.

MR. P. R. CHILDE, chemist and druggist, is opening a branch at 195 Main Road, Darnall, Sheffield.

MR. I. H. PALMER, chemist and druggist, has opened a pharmacy at 252 Twyford Avenue, Portsmouth.

MR. W. R. HAMILTON, chemist and druggist, has acquired the business of Mr. W. E. Wilson, 5 Oliver Place, Hawick.

GEO. RATCLIFFE, Medicated Lozenge and Pastille Works, Leeds, announce that they are retiring from business on April 30.

MR. F. W. BEATON, chemist and druggist, has acquired the business of Mr. I. A. Wright, chemist and druggist, 28 Osborn Road, Southsea.

MR. C. WOOLLONS, chemist and druggist, has purchased the business lately carried on by A. J. Sarson, Ltd., at 33 High Road, Willesden Green, London, N.W.10.

WALFORD & Co., LTD., manufacturing chemists, have removed from St. Oswald Street, Collyhurst, Manchester, 9, to a new factory at Heath Street, Newton Heath, Manchester, 10.

MR. W. EVERARD WHITE, chemist and druggist, 7 Market Street, Gainsborough, is retiring from business, after forty-five years, on March 31. The business will be continued under the old style of W. Everard White & Son by his son, Mr. Richard P. White, chemist and druggist, who has been a partner for the past twelve years.

MR. JAMES MACDONALD, manufacturer of surgical dressings and druggists' sundries, is discontinuing the name "Spencers" in his business, and after carrying on under his own name at 14 Timber Street, Dantzic Street, Manchester, until March 26, has transferred his warehouse and office to 26 Chapel Street, Salford.

Telegrams :
"Atoleine
Sedist,
London."



Telephone :
Bermondsey
1141

John Bell, Hills & Lucas Ltd.

"JOHN BELL BRAND"
COLD CURE CAPSULES.

For Influenza and Common Cold.

A good selling Winter line.

Send for Sample box and particulars.

Oxford Works, Tower Bridge Road, London, S.E.1

Tubes and
Vials of 24
Cat units,
retail 3/6

From Wholesalers,
or the British
Empire Agents.

UPSHER SMITH
DIGITALIS
TINCTURE TABLETS

MATTHEWS LABORATORIES, LTD., CLIFTON, BRISTOL, ENG.

GLANDULAR PRODUCTS "PABYRN"
PLURIGLAND TABLETS Nos. 1 to 32 "PABYRN"
A-MENOTAB, PITALIN

Made by

PAINES & BYRNE LTD.

PABYRN LABORATORIES, PERIVALE, GREENFORD

Telephone : Perivale 1143-1144 Telegrams : "Glands, Greenford"

"Ty-phoo" TEA (Owned by
Sumner's "Ty-phoo" Tea Ltd.
Birmingham)

is the rare "leaf-edge" tea which doctors
throughout the country are now recommend-
ing to patients with whom ordinary tea
disagrees.

Applications invited for sample and terms for
what is claimed to be

"The best paying line in the trade"

(This Company is not connected
with any other House)

(21 7/8% on selling price)

PARKINSONS'
KILKOF

WRITE FOR SPECIAL TERMS

PARKINSONS LTD., Manufacturing Chemists, BURNLEY

Telephone : National 1631.

ROBERTS & NEWTON

Label & General Printers,

DOMINION HOUSE,

BARTHOLOMEW CLOSE,

LONDON, E.C.1

Printers to the Drug Trade for over 40 years.

Labels imprinted BY RETURN.

90 % **S. V. R.** 95 %
1932 B.P.

FOR

Write for Prices

TINCTURES

JAS. BURROUGH LTD. 1 Cale Distillery,
LAMBETH, S.E.11

STEPHENSON'S

INCOMPATIBILITY IN PRESCRIPTIONS

is used by Teachers and Students in the leading
PHARMACY SCHOOLS throughout Great Britain.

Cloth, Gilt, 4s. 6d., by post, 4s. 9d.

Through any Medical Bookseller, or direct from:—

"THE PRESCRIBER" Offices, 13 Glencairn Crescent, Edinburgh 12

OPTICAL TUITION

FOR THE

S.M.C., B.O.A. and N.A.O. DIPLOMA Examinations

Particulars:—

C. A. SCURR, F.S.M.C., F.B.O.A., F.N.A.O., F.I.O., F.C.O., M.P.S.
50 HIGH STREET, BARNET, LONDON, N.

PUTNAMS PRICE PROTECTED
POULTRY PRODUCTS PRODUCE
PROFITS

WRITE FOR TERMS:—

Putnams Dependable Service
NORTHAM, DEVON

LIVERPOOL SCHOOL OF PHARMACY



Preparation for the
Preliminary Scientific
and Qualifying
Examinations.

Next Session Commences
October 4th.

Special Part I Revision
Course for the June Exam.—
April 9th.

Particulars from the Principal:
H. HUMPHREYS JONES,
F.I.C., F.C.S., Ph.C.
2 BLACKBURN PLACE,
LIVERPOOL.

VETERINARY COUNTER PRACTICE. Price 7s. 6d. net,
by post 8s.

THE PHOTOGRAPHIC CHEMIST. Price 3s. 6d., by post
3s. 8d.

THE ART OF DISPENSING. Price 8s., by post 8s. 6d.

THE C. & D. PRICE LIST FORMULARY, "P.L.F."
Price 2s. 6d. post free.

DISEASES AND REMEDIES. Price 5s., by post 5s. 3d.

THE "CHEMIST AND DRUGGIST," 28 Essex Street, W.C.2

Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-
hand suppliers of the undermentioned articles will be appreciated.

H/21. Adesa plate cleaner
E/27. Airlite hair brushes
B/28. Black's comp. ointment
D/23. Eclipse depilatory
W/26. Fluoresia or Casleac for
drains

D/10. Gloria plaster of paris
bandages
A/26. Hyperion capsules
W/17. Maxence lipstick
B/26. Torost capsules

THE CHEMIST AND DRUGGIST

VOL. CXX. MARCH 31, 1934

NO. 2825

Developing the Toilet Trade

FROM a perusal of the views of several of the leading manufacturers of toilet products, published in the *C. & D.*, March 17, p. 310 *et seq.*, the suggestion emerges that the chemist, so far as the proper development of the toilet trade is concerned, is not sufficiently pulling his weight; and the result, it seems, is that much of this lucrative business is passing through other channels. Formerly, of course, the toilet trade was an adjunct of the chemist's business, more by virtue of the practice of pharmacy than otherwise, but that day has largely passed away, and the original distributor is now one of many. It is difficult to see how this state of affairs could have been avoided, as the main competition arises from sources essentially of modern development. There is no doubt, however, that in the future the toilet trade will expand greatly, and it is surely a matter for chemists to consider whether they will retain, and, indeed, considerably add to, their rightful portion.

Competition

In the toilet trade, the chemist is faced with three main sources of competition: the fixed-price stores, department stores, and hairdressers, and the form it takes is different in each case. It has been said of the first-named that as they supply only, and do not sell, the competition from them may be ignored; the weakness of this statement, however, lies in the fact that the fixed-price stores make serious inroads into the chemist's business. As regards department stores, these establishments enjoy great advantages over the private chemist; in matters of space, continuous flow of customers, highly-trained assistants, and enormous buying power, they are favourably placed to take a large portion of the cream of the toilet trade. The hairdresser, on the other hand, depends for his success in the sale of toilet articles on the service he renders to his women customers. The number of hairdressing establishments has increased enormously in recent years, owing to the modern evolution of women's fashions, and it is from this source that the greatest competition is being felt.

Remedies

From the remedies suggested we have selected several as being, in our opinion, worthy of further mention. One of the main points raised is that of display, and there is little doubt that a vast improvement can be effected in this direction. Toilet goods lend themselves to attractive presentation, and the result is usually reflected in the sales. During a recent survey of windows over a fairly wide area, we were impressed by the amount of thought and care which is obviously given to displays of toilet goods—

and particularly those of the "beauty product" class—by hairdressers. Most of the displays were of the open type, built up on cubes or other modern fittings, in contrast to the frequently crowded and not too well dressed windows of the chemist. It is suggested that competition from fixed-price stores can be met by consistently showing a range of toilet goods designed to cater for this market; there is no lack of suitable articles, and no necessity to sacrifice quality. Another interesting and useful suggestion concerns the forming of a separate department for toilet and perfumery lines, preferably in charge of a person who thoroughly understands the subject; women, it is stated, prefer advice on such matters from one of their own sex. Such a service should have the benefit of a prominent announcement, followed up by circular letters keeping the customer in touch with new lines and ideas. In conclusion, we may remind our readers that the best means of developing the toilet trade lies in still closer co-operation between manufacturer and retailer, to the ultimate benefit of both.

The Botany of Albertus Magnus

IN our special issue of June 24, 1933 (p. 711), we called attention to a valuable monograph by Dr. T. A. Sprague on the botanical nomenclature of Pliny. The Kew "Bulletin of Miscellaneous Information," in which this monograph appeared, has since published (No. 9, 1933, pp. 431-459) two further studies from the same author, dealing respectively with the plant morphology and the botanical terms found in the "De Vegetabilibus Libri VII" of Albertus Magnus. In the sixth book of the seven Albertus descended, almost with an apology, from the height of philosophical argument to describe woody and herbaceous plants. He decided that plants were living organisms possessed of souls, and that they were all of one sex, male and female characters being combined in the same individual. "Genus" and "species" were applied by him in purely relative senses, though occasionally with their modern meanings. The gradual change in meaning of familiar words is illustrated by "arbutum," used by Pliny in the first century of a plantation of trees, on which vines were trained. By the time of Isidorus, Dr. Sprague tells us, it had acquired the additional meaning of sapling; and in the works of Albertus Magnus it meant a shrub—the equivalent of the French "arbuste." Like Pliny, Albertus uses the same word in various senses: thus "folium" may mean (1) foliage-leaf, (2) leaflet, (3) segment of a dissected leaf, (4) sepal, (5) petal. Some of the beliefs of magicians and sorcerers are quoted. "A stick of ebony tied to an infant's cradle was said to ward off terrifying apparitions; the fiercest bulls became tame if tied to a wild fig tree; . . . house-leek (*Sempervivum tectorum*) was said to ward off thunderbolts, and was accordingly planted on roofs." Dr. Sprague has provided an indispensable guide to a difficult author.

"C. & D." Showcards

In view of the numerous inquiries which have reached us regarding the showcards used in the *C. & D.* model window displays, we have made arrangements whereby copies of these cards can be made to order. Subscribers may have their names incorporated if so desired; prices on application.

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

PHARMACY

Australian and New Zealand Formulas.—The following formulas are included in the sixth edition of the Australian and New Zealand Formulary (A.P.F.), 1934, published by the Pharmaceutical Association of Australia and New Zealand:—

ACRIFLAVINA OLEATA.—OLEATED ACRIFLAVINE.—

| | | | |
|-------------------|-----|-----|-----------------------|
| Acriflavine | ... | ... | 17.5 gr. |
| Potassium acetate | ... | ... | 17.5 gr. |
| Distilled water | ... | ... | A sufficient quantity |
| Oleic acid to | ... | ... | 4 oz. |

Dissolve the acriflavine in 1½ oz. of distilled water in a small separating funnel. Add the potassium acetate and dissolve. Shake with 3 oz. of oleic acid. Separate the aqueous layer and shake this with the remainder of the oleic acid in two successive quantities. Dry the mixed acid liquids by shaking with 5 gr. of anhydrous sodium sulphate. Allow to stand until clear or after a few minutes filter through paper.

AQUA THYMOLIS.—THYMOL WATER.—

| | | | |
|------------------------|-----|-----|--------|
| Thymol | ... | ... | 8 gr. |
| Alcohol (90 per cent.) | ... | ... | 20 ℥ |
| Distilled water to | ... | ... | 20 oz. |

Prepare by the B.P. process for aqua camphoræ, and filter.

CERATUM HYDROSUM.—HYDROUS CERATE.—*Synonym* —Unguentum Refrigerans. Type of Cold Cream.

| | | | |
|--------------------------------|-----|-----|--------|
| White beeswax | ... | ... | 3 oz. |
| Liquid paraffin, by weight | ... | ... | 10 oz. |
| Borax | ... | ... | 70 gr. |
| Oil of geranium | ... | ... | 10 ℥ |
| Oil of Australian sandalwood | ... | ... | 10 ℥ |
| Distilled water, by weight, to | ... | ... | 16 oz. |

Melt the white beeswax with the liquid paraffin on a water bath; dissolve the borax in the warmed distilled water and while warm mix with the melted base. Set aside for a time, preferably 24 hours, add the perfume and mix thoroughly.

CONFECTIO AGARIS ET PARAFFINI.—CONFECTION OF AGAR AND PARAFFIN.—

| | | | |
|---------------------|-----|-----|--------|
| Alkanna root | ... | ... | 8 gr. |
| White soft paraffin | ... | ... | 5 oz. |
| Agar | ... | ... | 2½ oz. |
| Citric acid | ... | ... | 40 gr. |
| Oil of lemon | ... | ... | 16 ℥ |
| Sucrose to | ... | ... | 8 oz. |

Digest the alkanna root in the melted soft paraffin on a water bath for 15 minutes, strain on to the agar, citric acid, and sucrose previously powdered and mixed in a mortar. When cold add the oil of lemon.

Dose.—1 to 4 dr.

CONFECTIO PARAFFINI.—CONFECTION OF PARAFFIN.—

| | | | |
|---------------------|-----|-----|--------|
| Alkanna root | ... | ... | 8 gr. |
| White soft paraffin | ... | ... | 5 oz. |
| Citric acid | ... | ... | 40 gr. |
| Oil of lemon | ... | ... | 16 ℥ |
| Sucrose to | ... | ... | 8 oz. |

Digest the alkanna root with the melted soft paraffin on a water bath for 15 minutes, strain on to the citric acid and the sucrose, previously powdered and mixed in a mortar. When cold add the oil of lemon.

Dose.—1 to 4 dr.

ELIXIR CAPSICI AROMATICUM.—AROMATIC ELIXIR OF CAPSICUM.—

| | | | |
|-----------------------------|-----|-----|--------|
| Strong tincture of capsicum | ... | ... | ½ oz. |
| Compound spirit of cinnamon | ... | ... | 16 ℥ |
| Red elixir | ... | ... | 5 oz. |
| Syrup | ... | ... | 10 oz. |
| Distilled water to | ... | ... | 20 oz. |

Dose.—½ to 1 dr.

ELIXIR EPHEDRINÆ.—ELIXIR OF EPHEDRINE.—

| | | | |
|-------------------------|-----|-----|-------|
| Ephedrine hydrochloride | ... | ... | ¼ gr. |
| Aromatic syrup | ... | ... | 30 ℥ |
| Distilled water to | ... | ... | 1 dr. |

Dose.—½ to 1 dr.

ELIXIR PHENOBARBITONI.—ELIXIR OF PHENOBARBITONE.

| | | | |
|------------------------|-----|-----|-------|
| Soluble phenobarbitone | ... | ... | ¼ gr. |
| Aromatic syrup to | ... | ... | 1 dr. |

Dose.—1 to 2 dr.

EMULSIO ACRIFLAVINÆ.—EMULSION OF ACRIFLAVINE.—

| | | | |
|--------------------|-----|-----|---------|
| Acriflavine | ... | ... | 4½ gr. |
| Distilled water | ... | ... | 2 oz. |
| Yellow beeswax | ... | ... | 175 gr. |
| Liquid paraffin to | ... | ... | 10 oz. |

Melt the beeswax with 2 oz. of the liquid paraffin and transfer to a slightly warmed mortar. Add slowly, with constant stirring, the solution of the acriflavine in the distilled water, then add the rest of the liquid paraffin.

EMULSIO PARAFFINI ET AGARIS.—EMULSION OF PARAFFIN AND AGAR.—

| | | | |
|-----------------------------|-----|-----|--------|
| Liquid paraffin | ... | ... | 80 ℥ |
| Agar, in powder | ... | ... | 20 gr. |
| Acacia, in powder | ... | ... | 10 gr. |
| Compound spirit of cinnamon | ... | ... | 2 ℥ |
| Chloroform water to | ... | ... | ½ oz. |

For one dose.

EMULSIO PARAFFINI ET KAOLINI.—EMULSION OF PARAFFIN AND KAOLIN.—

| | | | |
|---------------------------|-----|-----|--------|
| Liquid paraffin | ... | ... | 80 ℥ |
| Kaolin | ... | ... | 60 gr. |
| Acacia, in powder | ... | ... | 20 gr. |
| Tragacanth | ... | ... | 2 gr. |
| Solution of saccharin | ... | ... | 2 ℥ |
| Compound spirit of almond | ... | ... | 1 ℥ |
| Chloroform water to | ... | ... | ½ oz. |

For one dose.

EUCALYPTOL SOLUBILE.—SOLUBLE EUCALYPTOL.—

| | | | |
|-------------------|-----|-----|--------|
| Eucalyptol | ... | ... | 6 oz. |
| Alcoholic soap to | ... | ... | 20 oz. |

FERRI CARBONAS NASCENS.—NASCENT FERROUS CARBONATE.—*Synonym*—Powder of Blaud's Pill.

| | | | |
|-----------------------------|-----|-----|--------|
| Exsiccated ferrous sulphate | ... | ... | 10 gr. |
| Exsiccated sodium carbonate | ... | ... | 6 gr. |
| Lactose | ... | ... | 2 gr. |

Mix the exsiccated ferrous sulphate with half the lactose and the exsiccated sodium carbonate with the other half. Then mix the two products lightly on paper with a spatula.

Strength.—Three grains of the above powder is equivalent to 5 gr. of Blaud's Pill, B.P.

Dose.—3 to 18 gr. stirred up in about 1 oz. of water.

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

GLYCANTHUM.—**GLYCANTH.**—*Synonyms*—Glycerin and Tragacanth Base; Water-soluble Base.

| | |
|---------------------|--------|
| Tragacanth ... | 26 gr. |
| Starch ... | 26 gr. |
| Distilled water ... | 1 oz. |
| Glycerin ... | 1 oz. |

Mix the starch and cold distilled water in a dish and boil. Rub the tragacanth and glycerin in a mortar, add the contents of the dish and mix thoroughly. Dispense in a collapsible tube.

GLYCANTHUM ADRENALINÆ.—**GLYCANTH OF ADRENALINE.**—

| | |
|--|-------|
| Solution of adrenaline hydrochloride ... | 10 M |
| Glycanth to ... | 1 oz. |

GLYCANTHUM EPHEDRINÆ.—**GLYCANTH OF EPHEDRINE.**—

| | |
|-----------------------------|-----------------------|
| Ephedrine hydrochloride ... | 9 gr. |
| Eucalyptol ... | 1 M |
| Distilled water ... | a sufficient quantity |
| Glycanth to ... | 2 oz. |

Dissolve the ephedrine hydrochloride in a small quantity of distilled water, and mix with the other ingredients.

GUTTÆ CHLORBUTOLIS.—**CHLORBUTOL NASAL DROPS.**—

| | |
|---------------------------|---------------|
| Chlorbutol ... | 10 gr. |
| Oil of cinnamon ... | 3 M |
| Menthol, Camphor ... | of each 5 gr. |
| Thickened paraffin to ... | 1 oz. |

Triturate the first four ingredients until liquefied, then add the thickened paraffin. Dry with anhydrous sodium sulphate or filter.

INHALATIO SOLIDA.—**SOLID INHALANT.**—*Synonym*—Nasal or Catarrhal Balm.

| | |
|----------------------------|--------|
| Thymol ... | 2½ gr. |
| Phenol ... | 2½ gr. |
| Menthol ... | 5 gr. |
| Eucalyptol ... | 10 M |
| Wool fat ... | ½ oz. |
| White soft paraffin to ... | 1 oz. |

Triturate the first four ingredients together until liquefied, then mix with the wool fat and soft paraffin previously melted together at a low temperature.

INHALATIO THYMOLIS COMPOSITA.—**COMPOUND INHALATION OF THYMOL.**—

| | |
|--------------------------------|--------|
| Thymol ... | 10 gr. |
| Menthol ... | 30 gr. |
| Oil of lavender ... | 20 M |
| Oil of eucalyptus ... | 10 M |
| Strong solution of ammonia ... | 10 M |
| Alcohol (90 per cent.) to ... | 1 oz. |

Dissolve the first four ingredients in the alcohol and add the strong solution of ammonia.

LINIMENTUM IODI COMPOSITUM.—**COMPOUND IODINE LINIMENT.**—*Synonym*—Methylis Salicylas Iodisatus.

| | |
|--------------------------|--------|
| Iodine ... | 10 gr. |
| Oleic acid ... | 1 oz. |
| Menthol ... | 60 gr. |
| Camphor ... | 60 gr. |
| Methyl salicylate to ... | 2 oz. |

Place the iodine with the oleic acid in a lightly corked bottle. Heat in a water bath about 80° C. until the solution becomes olive-green (about 10 minutes). Cool and then add the other ingredients.

LIQUOR AMMONII ACETATIS DUPLEX.—**SOLUTION OF AMMONIUM ACETATE.**—

| | |
|------------------------------------|--------|
| Solution of ammonium carbonate ... | 6 oz. |
| Acetic acid ... | 3½ oz. |
| Distilled water to ... | 10 oz. |

Gradually add the acetic acid to the solution of ammonium carbonate in a capacious vessel, stirring to liberate the gas. Then make up to volume.

LIQUOR AMMONII CARBONATIS.—**SOLUTION OF AMMONIUM CARBONATE.**—

| | |
|------------------------|---------|
| Ammonium carbonate ... | 480 gr. |
| Distilled water to ... | 6 oz. |
| (1 gr. in 6 M) | |

LIQUOR ARSENICALIS GLYCERINATUS.—**GLYCERINATED ARSENICAL SOLUTION.**—

| | |
|-----------------------------------|---------|
| Arsenic trioxide ... | 87½ gr. |
| Glycerin ... | 2 oz. |
| Compound tincture of lavender ... | 288 M |
| Distilled water to ... | 20 oz. |

Heat the arsenic trioxide with the glycerin to 150° C. until a clear solution is obtained. Cool, add the distilled water and the compound tincture of lavender. Filter.

Dose 2 to 8 M.

LIQUOR BISMUTHI ET AMMONII CITRATIS CONCENTRATUS.—**CONCENTRATED SOLUTION OF BISMUTH AND AMMONIUM CITRATE (Double Strength).**—

| | |
|--------------------------------|-----------------------|
| Bismuth oxynitrate ... | 612 gr. |
| Citric acid ... | 612 gr. |
| Dilute solution of ammonia ... | a sufficient quantity |

| | |
|---------------------------------------|--------|
| Concentrated spirit of chloroform ... | 60 M |
| Distilled water to ... | 10 oz. |

Dissolve the citric acid in 3 oz. of distilled water, add the bismuth oxynitrate and heat on a water bath until a little of the product withdrawn on a glass rod is completely soluble in dilute solution of ammonia. Now add sufficient dilute solution of ammonia until all the solid matter has disappeared and at the most only a slight turbidity remains. Add the concentrated spirit of chloroform and sufficient distilled water to produce the required volume. Add about 10 gr. of talc and filter.

Dose.—½ to 1 dr.

LIQUOR BISMUTHI ET SODII TARTRATIS ACIDUS.—**ACID SOLUTION OF BISMUTH SODIUM TARTRATE.**—

| | |
|---------------------------------------|----------------------------------|
| Bismuth oxynitrate ... | 468 gr. |
| Nitric acid ... | 360 M |
| Sodium hydroxide ... | 470 gr. or a sufficient quantity |
| Tartaric acid ... | 600 gr. |
| Concentrated spirit of chloroform ... | 120 M |
| Distilled water to ... | 20 oz. |

Dissolve the bismuth oxynitrate in the nitric acid diluted with an equal volume of distilled water and pour slowly and with constant stirring into a solution of 260 gr. of sodium hydroxide in 7 oz. of distilled water. Collect the precipitate on a calico strainer, wash with distilled water until the filtrate is neutral to phenolphthalein. Add 520 gr. of the tartaric acid to the moist precipitate and heat on a water bath for about 2½ hours, or allow to stand at ordinary temperature for about two days until a little is soluble in a solution of sodium hydroxide. To the precipitate add sufficient solution containing 210 gr. of sodium hydroxide in 1 oz. of distilled water until it has just dissolved and the solution is neutral to litmus paper. Now add the rest of the tartaric acid and dissolve, add a little talc if necessary and filter. Pass sufficient distilled water through the filter to produce the required volume.

Dose.—½ to 1 dr.

LIQUOR CASCARÆ AROMATICUS.—**AROMATIC SOLUTION OF CASCARA.**—*Synonyms*—Aromatic Cascara, Miscible Liquid Extract of Cascara.

| | |
|---------------------------------|-----------------------|
| Cascara sagrada (broken) ... | 20 oz. |
| Dilute sulphuric acid ... | 1 oz. |
| Dilute solution of ammonia ... | a sufficient quantity |
| Oil of coriander ... | 20 M |
| Alcohol (90 per cent.) ... | 4 oz. |
| Oil of orange ... | 20 M |
| Spirit of chloroform ... | 80 M |
| Liquid extract of liquorice ... | 4 oz. |
| Saccharin ... | 13 gr. |
| Distilled water to ... | 20 oz. |

Boil the cascara sagrada with 7½ pints of distilled

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

water and the dilute sulphuric acid for two hours, replacing the water lost by evaporation, if necessary. Allow the mixture to stand for 24 hours, then strain and boil the marc with two successive quantities of distilled water. Make the mixed extracts slightly alkaline with the dilute solution of ammonia and evaporate on a water bath to 12 oz., maintaining slight alkalinity during the evaporation by the addition of dilute solution of ammonia from time to time. Add the rest of the ingredients and make up to the required volume with distilled water.

Dose $\frac{1}{2}$ to 1 dr. as a laxative, 5 to 15 m for repeated administration.

LIQUOR EPHEDRINÆ HYDROCHLORIDI.—SOLUTION OF EPHEDRINE HYDROCHLORIDE.—

| | | |
|-------------------------|-----|---------------------|
| Ephedrine hydrochloride | ... | 8 $\frac{3}{4}$ gr. |
| Sodium chloride... | ... | 4 $\frac{1}{2}$ gr. |
| Chlorbutol | ... | 8 $\frac{3}{4}$ gr. |
| Distilled water to | ... | 2 oz. |

Dose.—1 to 2 dr.

LIQUOR PHENOBARBITONI SOLUBILIS.—SOLUTION OF SOLUBLE PHENOBARBITONE.—

| | | |
|--------------------|-----|---------|
| Phenobarbitone | ... | 132 gr. |
| Sodium hydroxide | ... | 24 gr. |
| Distilled water to | ... | 3 oz. |

Diffuse the phenobarbitone in 2 oz. of distilled water. Add to this gradually the sodium hydroxide dissolved in 3 dr. of distilled water until a clear solution is obtained. Finally make up to volume.

LOTIO AMYGDALÆ COMPOSITA.—COMPOUND LOTION OF ALMOND.—

| | | |
|------------------------------|-----|-------------------|
| Stearic acid | ... | 2 oz. |
| Triethanolamine | ... | 80 m |
| Alcohol (90 per cent.) | ... | $\frac{1}{2}$ oz. |
| Glycerin | ... | 300 m |
| Tincture of benzoin | ... | 20 m |
| Essential oil of almond... | ... | 10 m |
| Oil of Australian sandalwood | ... | 5 m |
| Distilled water to | ... | 20 oz. |

Place the stearic acid, glycerin and 15 oz. of distilled water in an enamelled vessel and heat. When the stearic acid has melted, add the triethanolamine, and mix thoroughly. Allow to cool and, when lukewarm, add the alcohol and perfumes. Finally add sufficient distilled water to produce the required volume.

METHYLEUGENOL SOLUBILE. — SOLUBLE METHYLEUGENOL.—

| | | |
|--------------------|-----|--------|
| Methyleugenol | ... | 4 oz. |
| Alcoholic soap | ... | 14 oz. |
| Distilled water to | ... | 20 oz. |

MISTURA BISMUTHI HYDROXIDI.—MIXTURE OF BISMUTH HYDROXIDE.—*Synonyms*—Lac Bismuthi, Milk of Bismuth.

| | | |
|--------------------|-----|---------|
| Bismuth oxynitrate | ... | 940 gr. |
| Nitric acid | ... | 800 m |
| Ammonium chloride | ... | 875 gr. |
| Sodium hydroxide | ... | 600 gr. |
| Distilled water to | ... | 20 oz. |

Mix the bismuth oxynitrate with 800 m of distilled water, add the nitric acid and dissolve. Dissolve the ammonium chloride in 100 oz. of distilled water, add to this the sodium hydroxide previously dissolved in its own weight of distilled water. Add the bismuth solution all at once, stirring vigorously. Transfer to a calico strainer and wash free from chloride, maintaining a layer of liquid above the precipitate. Allow to drain, finally add sufficient distilled water to produce the required volume.

Dose.—1 to 4 dr.

PASTA MAGNESII SULPHATIS.—MAGNESIUM SULPHATE PASTE.—

| | | |
|-------------------------------|-----|-------|
| Liquefied phenol | ... | 30 m |
| Glycerin | ... | 1 oz. |
| Dehydrated magnesium sulphate | ... | 4 oz. |

Mix in a warmed mortar.

PULVIS AMIDOPYRINÆ COMPOSITUS. — COMPOUND POWDER OF AMIDOPYRINE.—

| | | |
|---------------------------|-----|-------------------|
| Dry extract of hyoscyamus | ... | $\frac{1}{4}$ gr. |
| Caffeine | ... | $\frac{1}{2}$ gr. |
| Phenacetin | ... | 1 gr. |
| Amidopyrine to | ... | 5 gr. |

Dose.—5 to 10 gr.

UNGUENTUM ACRIFLAVINÆ.—OINTMENT OF ACRIFLAVINE.—

| | | |
|--------------------|-----|-------|
| Acriflavine | ... | 2 gr. |
| Distilled water | ... | 20 m |
| Simple ointment to | ... | 4 oz. |

Dissolve the acriflavine in the distilled water and mix with the simple ointment.

UNGUENTUM ACRIFLAVINÆ OLEATÆ.—OINTMENT OF OLEATED ACRIFLAVINE.

| | | |
|---------------------|-----|-------|
| Oleated acriflavine | ... | 190 m |
| Simple ointment to | ... | 4 oz. |

UNGUENTUM CAPSICI OLEORESINÆ.—OINTMENT OF OLEORESIN OF CAPSICUM.—

| | | |
|-------------------------|-----|---------|
| Oleoresin of capsicum | ... | 105 gr. |
| Chloral hydrate | ... | 105 gr. |
| Menthol | ... | 105 gr. |
| Camphor | ... | 105 gr. |
| Wool fat | ... | 105 gr. |
| Hard paraffin | ... | 210 gr. |
| Yellow soft paraffin to | ... | 4 oz. |

Rub the first four ingredients together until liquid, then add the previously melted base.

BIOLOGICAL CHEMISTRY

Constitution of Ergosterol and its Irradiation Products.—O. Rosenheim and H. King ("Chemistry and Industry," 53, 9, 196) supply a working hypothesis for formulating in orderly sequence the series of intramolecular changes underlying the conversion of ergosterol into vitamin A. Three types of change take place:—(1) Epimerisation (inverted orientation) of the hydroxyl group. (2) Movement of the system of conjugated double bonds in three distinct stages from ring II to ring IV, involving (3) a steric change from an *allocholine* to a *cholane* structure. Recent experimental evidence confirms the correction of the C_6 : C_7 : C_8 placing of the double bonds in ergosterol as shown, and this provides the only satisfactory representation of its known reactions.

Halibut-liver Oil Groups.—R. T. M. Haines and J. C. Drummond ("Chemistry and Industry," 43, 11, 811) have determined the blue values and iodine values of an extensive range of halibut-liver oils of known origin placed at their disposal by the Crookes Laboratories. The blue values were estimated after suitable dilution according to B.P. technique and the iodine values were obtained by the Rosenmund and Kuhnemann method, using pyridine sulphate perbromide as halogenating agent. The results show that there is a straight line relation between the values for vitamin A below about 2,000 blue units (5 per cent. vitamin A) and iodine values (with different heights for West Greenland and Farøe oils). The range of values for the different groups of halibut-liver oils was as follows:—

| Origin | No. of samples | Blue value | | Iodine value | |
|----------------|----------------|------------|---------|--------------|---------|
| | | Lowest | Highest | Lowest | Highest |
| West Greenland | 12 | 523 | 4,350 | 116.9 | 161.0 |
| "Labrador" ... | 5 | 325 | 730 | 116.2 | 121.5 |
| East Greenland | ... | ... | ... | ... | ... |
| Farøe | 7 | 558 | 1,700 | 124.5 | 135.0 |
| Danish ... | 1 | 299 | — | 136.5 | — |
| Norwegian | 2 | 296 | 301 | 160.5 | 160.5 |
| American | 4 | 1,100 | 1,270 | 134.0 | 149.5 |

The data for the authenticated (Greenland) oils lead to the suspicion that certain proprietary forms of halibut-liver oil are blended with cod-liver or other fish-liver oils. The American Medical Association specification recently issued calls for 32,000 U.S.P. X units (about 400 blue units) and an iodine value ranging from 125 to 155. It would thus seem that admixture with cod-liver oil (iodine value 165) or similar oils is not only permitted but expected.

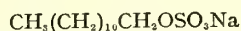
THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

INDUSTRIAL CHEMISTRY

Diacetyl for use as a butter flavouring in margarine is now obtained commercially by a fermentation method (Fulmer, Christensen and Kendall, "Industrial and Engineering Chemistry," 25, 798). The addition of one part of diacetyl to 200,000 of butter substitute or storage butter is claimed to give the flavour of fresh butter.

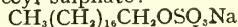
Lead for Chemical Plants.—W. Singleton ("Chemistry and Industry," 53, 8, 189) reviews the results of adding tellurium in amount less than 0.1 per cent. to lead. The resultant product has proved of value in chemical plant requiring sheet lead and lead pipes owing to resistance to corrosion and the fine grained structure of the metal. The increase in strength of tellurium lead makes it three times as resistant to vibration as ordinary lead.

New Detergents.—R. A. Duncan ("Industrial and Engineering Chemistry," 26, 1, 24) gives technical details of new types of detergents which have become available in commerce. The first group marketed in America during the last few months consist of the sodium salts of sulphated alcohols. Three types of products are offered, but that made from saturated alcohols of the range C_{10} to C_{14} has excited most interest. The latter sulphated alcohols are made by hydrogenating either coconut or palm oils, followed by fractional distillation. The principal component sodium salt is sodium lauryl sulphate:—

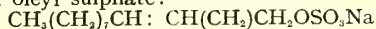


Commercial sodium lauryl sulphate is sold as "Gardinol WA" in the textile trade and as "Orvus" in other bulk supplies. It is also offered for retail trade in the form of a spray dried granulated powder under the name of "Dreft." There is also a likelihood that it will be offered in liquid form as a shampoo and in bar form as a toilet soap. The sodium salt of lauryl alcohol possesses the physical characteristics of a soap, but its solubility and sudsing capacity is more affected by temperature than the soap of corresponding molecular weight. However, it is sufficiently soluble to sud well in ice-cold water. This is due to high solution rate in part and also to smaller amount required to produce suds. The calcium and magnesium salts of lauryl alcohol are good sudsants and good detergents. The amount of sodium lauryl sulphate required for washing is practically independent of the hardness of the water, and being little affected by salt it performs well in sea water. Other products offered are:—

Sodium octadecyl sulphate:

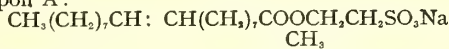


Sodium oleyl sulphate:



The sodium octadecyl alcohol is made from sperm oil, and is suitable for use in hot water at a temperature of 130° F. or higher. The commercial sodium oleyl sulphate is a mixture of sulphate ester and sulphonate owing to some sulphonation of the double bond. Igepons, new types of detergents developed in Germany, are also described. Igepon "A" is made by causing isethionic acid or its salt to combine with oleic acid. The product is a good detergent and resistant to hard water, but cannot be used with alkalis owing to soap formation following the splitting of the molecule at the carboxyl group. Igepon "T" overcomes this difficulty. The formulas are:—

Igepon A:



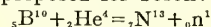
Igepon T:



The Igepons have not apparently been marketed as yet. The commercial importance of the new detergents depends upon their cost being brought below the luxury level for washing fine fabrics and dishes and for toilet use.

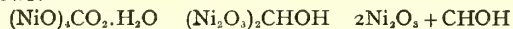
PURE CHEMISTRY AND PHYSICS

Artificial Production of a New Type of Radio-Element.—F. Joliot and I. Curie ("Nature," 3354, 201) state that irradiation of beryllium, magnesium, or aluminium in foil form with a polonium preparation results in the birth of new radio-elements emitting positive electrons (positrons). The emission of positrons does not cease immediately the activating preparation is removed, the decay being exponential as with radio-elements. The half-life periods are:—Boron, 14 minutes; magnesium, 2½ minutes; and aluminium 3½ minutes. The following nuclear action is proposed for boron:—



Chemical evidence agrees with the radioactive nucleus being an isotope of nitrogen, and this is claimed as the first chemical proof of artificial transmutation of elements. The names *radionitrogen*, *radiosilicon*, and *radiophosphorus* are proposed for the new radio-elements obtained by the transmutation of boron, magnesium and aluminium

Photosynthesis of Carbohydrates.—E. C. C. Baly, in a recent lecture abstracted in "Chemistry and Industry" (53, 8, 175), states that the conversion of hydrated carbon dioxide to carbohydrates requires about 112,300 calories, but blue does this by an expenditure of only 66,000 calories. It was found that nickelous carbonate catalyses the process (using 72,600 calories) with CHOH as an intermediate substance of transient existence. It is suggested that the reactions are as follows:—



It was found that the intermediate substance has a metastable existence up to 31° C. in the absence of free water, which agrees the decline in reaction velocity with temperature and its breakdown below 36° C. The change $2Ni_2O_3 \cdot 4NiO + O_2$ is exothermic in the dark so that reactivation of catalyst is easily accomplished. The reaction will not go on in the absence of red light, which wave length (6000 Å) is required for the transformation of the intermediate organo-nickel compound. It is suggested that chlorophyll acts in similar manner, viz.:—
Chlorophyll, $CO_2 \cdot H_2O$ Chlorophyll, CHOH Chlorophyll, + CHOH

The change chlorophyll, chlorophyll, is also exothermic.

HYGIENE

Insulation against Heat and Cold.—G. P. Crowden describes experiments ("Lancet," 5758, 37) with reinforced aluminium foil used as an insulator against heat or cold. Most of the experiments relate to heat, and several were carried out in Egypt, where a difference of 30° F. or more between protected and unprotected objects was noted. The possible uses of the author's method or a modification of it—e.g., in helmets—are numerous.

MEDICINE

Solution for Use in Urethrocytography.—J. A. Hyams, H. R. Kenyon and S. E. Kramer give the following formula ("Journal of the American Medical Association," 101, 26, 2031) for use in x-ray examination of the bladder and urethra:—Equal proportions of a 20-per-cent. solution of skiodan and a solution consisting of sodium iodide 17.5 per cent., sodium bicarbonate 2 per cent. and gelatin 1 per cent. The technique of injection is described.

Tannic Acid Solution in Decubitus.—E. O. Latimer gives details ("Journal of the American Medical Association," 102, 10, 751) of the treatment of decubitus (pressure sores) with a fresh 5-per-cent. aqueous solution of tannic acid. Treatment is begun preferably before the skin is broken, and is continued until a heavy protective coagulum is formed. Virulent infection, profound necrosis of tissue and bone involvement are contra-indications to the use of tannic acid.

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

Risk in Epilation with X-Rays.—Details are given by I. I. Kaplan ("Journal of the American Medical Association," 102, 8, 595) of a case in which a young woman received x-ray treatment in 1926 for a growth of hair on the face, twenty treatments to each side being given. Epilation was effected. In 1931 a growth was noticed on the right cheek, and in 1933 the patient was admitted to hospital with a lesion diagnosed as fibroblastic granulation tissue. After unsuccessful treatment with a radium pack, the lesion was removed by operation, and was then found to be spindle cell sarcoma. At the time of writing the monograph the lesion had not completely healed.

Phenylmercuric Nitrate Ointment.—B. Levine gives a preliminary report ("Journal of the American Medical Association," 101, 27, 2109) of a new treatment of tinea and yeast infections of the skin. After various trials, the ointments found to be most efficient were made with two bases containing cholesterol derivatives. Both these bases containing phenylmercuric nitrate in a dilution of 1:1,500 gave excellent results. They were unquestionably superior to the ordinary hydrous wool fat preparations. Of 262 cases studied, 205 were carefully followed up, and the patients discharged as cured. In the occasional cases in which irritant effects occurred, these cleared up readily on withdrawal or on substitution of a less concentrated preparation.

Schaudinn's Solution.—The following formula for the preparation and use of Schaudinn's solution in the investigation of spermatozoa is given in "The Journal of the American Medical Association" (102, 8, 590):—Prepare thin cover slip smears as used in the preparation of blood for staining. Fixation: Immerse for one minute in 7-per-cent. solution of mercuric chloride, 2 parts, and absolute alcohol, 1 part. Immerse for half a minute in 50-per-cent. alcohol. Immerse for half a minute in distilled water 3 oz. and tincture of iodine 2 drops. Wash in tap water. Staining process: Immerse for half a minute in aqueous solution of eosin, 5 per cent. Immerse for one minute in 50-per-cent. alcohol 3 oz. and concentrated hydrochloric acid 2 drops. Wash in distilled water. Immerse for two and a half minutes in hematoxylin. Immerse for one minute in distilled water 3 oz. and glacial acetic acid 2 drops. Wash in distilled water. Dry and mount.

Treatment of Meta Fuel Poisoning.—The following treatment of poisoning by metal fuel (metalddehyde, CH_3COH), attributed to L. Wamoscher, Berlin, has been communicated to "The British Medical Journal" (3811, 132) by Elmesan (London), Ltd.:—(1) Immediate wash-outs of the stomach with large quantities of sodium bicarbonate solution. These should be repeated frequently and performed slowly for the first time, on account of the development of carbon dioxide. (2) High colon wash-outs of the bowels with alkaline solutions. (3) Purgatives after washing out: Glauber's salt or castor oil. No phenolphthalein or acids. (4) Large quantities of charcoal, preferably wood charcoal. (5) For the heart: caffeine, and, if necessary, strophanthin intravenously. (6) No narcotics, if possible. Against the cramps becoming too intensive: the sodium salt of veronal. (7) Intravenous injections of calcium (Sandoz) and repeated intravenous injections of 30- to 40-per-cent. glucose.

Cysteine Treatment of Cutaneous Ulcers.—L. A. Brunsting and Daisy G. Simonsen give an account ("Journal of the American Medical Association," 101, 25, 1937) of the treatment of more than 200 cases of cutaneous ulceration with a solution of cysteine, obtained from cystine by reduction with tin and hydrochloric acid and subsequent neutralisation of the hydrochloride with sodium hydroxide, 1 gm. of cysteine hydrochloride requiring 6.35 c.c. of $N/1$ sodium hydroxide or its equivalent. A solution of 0.5-per-cent. strength in physiological solution of sodium chloride and distilled water (equal parts) is used. The solution should be used within twenty-four hours, but may be kept longer in a

refrigerator. Dressings are changed at least twice daily. In the authors' experience, cysteine is not only fully as efficient as thiocresol in stimulating qualities, but it possesses two decided advantages from a practical standpoint. It is without the unpleasant, penetrating odour common to all volatile sulphhydryl compounds. Further, it is less irritating than thiocresol to the surface of skin adjoining the ulcers.

Inefficiency of Injectio Ferri, B.P.—G. N. Burger and L. J. Witts contribute to the "Proceedings of the Royal Society of Medicine" (27, 4, 447) a monograph demonstrating the inefficiency of the iron injection of the British Pharmacopœia as a means of ferrotherapy. The ten cases selected for treatment with this injection were "of a torpid, chronic and constant type." The treatment was given over periods of from ten to twenty-one days. Details of each case are given, with eight charts. It is clear from these results, the authors conclude, that hypochromic anæmia in human patients can sometimes be repaired by the injection of iron, but this method of treatment is much inferior to the administration of large doses of iron by mouth. It is fairly certain that iron absorbed by the body in anæmia, whether parenterally or by the alimentary tract, is converted, roughly, quantitatively into hæmoglobin. Calculation from their average values for the increase in hæmoglobin during the injection of iron shows that to cure an anæmia of ordinary severity it would be necessary to inject the maximum official dose of injectio ferri, B.P., every day for four months. The only safe way in which to obtain approximately as good an effect with iron by injection as by mouth would be to inject double the maximum official dose of the injection, i.e., 4 c.c. or 14 mgm. of metallic iron, twice daily for about six weeks.

The Common Cold.—H. S. Diehl gives, in "The Journal of the American Medical Association" (101, 26, 2042) the results of a controlled study of the treatment of colds extending over about a year. The results are tabulated and discussed in a seven-page article. There were 1,039 cases of acute coryza, 2,620 subacute or chronic colds, 1,140 influenza and 530 acute pharyngitis. The conclusions reached include the following:—Of the drugs studied, only opium and certain alkaloids derived from it seem to be of value in the treatment of acute coryza. Combinations of papaverine with codeine, papaverine with dilauidide, and papaverine with morphine were followed by "definite improvement" in from 74 to 78 per cent. of the cases, and in the dosages used these combinations seem to be practically non-toxic. For general use a combination of codeine and papaverine seems most desirable because of the high percentage of good results obtained with it, its low toxicity, and the absence of danger, or at least of "practical danger," of habituation to it. Morphine and dilauidide (dihydromorphinone hydrochloride) alone were followed by "definite improvement" in nearly as large a proportion of cases (73 and 72 per cent. respectively) but each was distinctly more toxic alone than when combined with papaverine. Codeine, papaverine, powdered opium, and powder of ipecacuanha and opium were followed by "definite improvement" in from 56 to 61 per cent. of cases. The toxicity of these drugs is in the following order: codeine, powdered opium, powder of ipecacuanha and opium and papaverine, with codeine practically as toxic as morphine. Powder of ipecacuanha and opium, although of value in the treatment of acute colds, is no more beneficial than the same amount of powdered opium without the ipecacuanha. Sodium bicarbonate, acetylsalicylic acid and a combination of acetylsalicylic acid-acetphenetidin-caffeine give little if any better results in the treatment of acute coryza than the lactose tablet used as a control, each being followed by "definite improvement" in from 35 to 42 per cent. of cases. None of the medications studied seems to be of benefit in subacute or chronic colds. Morphine was tried in influenza but was of no value. The number of cases of pharyngitis treated was too few to justify conclusions.

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

OPTICS

Source of Staphylococci on the Conjunctiva.—G. H. Gowen ("American Journal of Ophthalmology," January 1934) finds the skin of the lower lid to be the source of contamination of the conjunctiva; for staphylococci are constantly being transferred from it to the lower lashes by the overlapping of the upper lash in nictitation, and thence to the conjunctiva. The author excludes the route by way of the naso-lacrimal passage.

Visual Acuity.—C. E. Ferree and G. Rand ("American Journal of Ophthalmology," January 1934) state that refraction tests should not be restricted to conditions which give the best reading ability, but should include those which test primarily the clearness of the image formed on the retina. This is accomplished by amplifying the usual equipment with means of varying the illumination of the test object and the relative coefficients of reflection. These are said to be of great value in the detection and correction of the refractive error particularly in astigmatism, and especially in the placing of the axis.

Prolonged Occlusion Test.—W. L. Hughes ("Archives of Ophthalmology," February 1934) remarks that it is recognised that hyperphoria is frequently in itself an incomplete diagnosis, as a number of persons show a slight weakness of one or more of the vertical rotators to be the cause of the hyperphoria. This was brought out by testing the hyperphoria in the six cardinal positions of gaze. When a vertical prism was prescribed, however, the field of committancy included a great part of the field of binocular fixation. Vertical duction tests were carried out in all the cases before it was decided to perform the occlusion test. The information was not obtained by this method. Before performing this test, the author presumed that these tests would demonstrate any latent vertical deviation. That this was untrue was demonstrated in many of the cases referred to. The author does not believe that the prolonged occlusion test is to be relied on in all cases, but he does think that in some of the difficult cases latent muscle imbalance will be brought out and will point the way to measures which will relieve symptoms. Despite the theoretical objections to the test, it is of inestimable value in some instances of obscure symptoms which from their characteristics are believed to be ocular in origin.

PHARMACOLOGY

Poisoning by Phenylenediamine.—C. G. Israëls and W. Susman report jointly ("Lancet," 5767, 508) on a case of fatal poisoning by phenylenediamine. The victim had worked for five years in a hairdressing department as a dyer; she had used rubber gloves while applying the dye, but had removed them while shampooing and had cleaned stains on the hands with hydrogen peroxide. A feature of interest is the absence of any dermatitis, such as is often associated with the use of this dye. This, however, appears to be a characteristic of the systemic poisoning. A further point is the use of hydrogen peroxide for cleaning the hands. R. M. B. MacKenna states that "it is most dangerous to attempt to remove the dye from the hair by the use of hydrogen peroxide or sodium thiosulphate, as these measures may only intensify the symptoms." It is therefore possible that this was a contributory cause in this case. With regard to the mode of action of the dye, it seems likely that the production of aniline is responsible, at least in part, for the toxic symptoms. The dye as used commercially is a mixture of the *meta* and *para* forms of phenylenediamine. De-amination of either of these gives aniline. Support for this hypothesis is found in the occurrence of the pale blue staining material in the liver in this case.

Divinyl Ether as an Anæsthetic.—S. Goldschmidt and others contribute to "The Journal of the American Medical Association" (102, 1, 21) the results of experi-

mental and clinical studies in the anæsthetic use of divinyl ether, the formula of which is given as $\text{CH}_2 = \text{CH}-\text{O}-\text{CH}=\text{CH}_2$, and the b.p. 28.3°C . The number of hospital patients anæsthetised was 461. In only 2 per cent. was any excitement observed, and this was of very short duration owing to rapidity of induction. Recovery was, as a rule, rapid and smooth. The anæsthetic was administered as often as five times to the same patient. No untoward effects have been observed on the blood pressure or respiration. The very low incidence of excitement or post-anæsthetic vomiting and of respiratory complications is noteworthy. The anæsthetic concentration in the blood necessary for surgical anæsthesia in dog or man is low, and the lethal concentration in the dog is nearly two and a half times the anæsthetic concentration. In the human being they have encountered no untoward effects on the liver or kidneys, but have been careful to avoid its use in patients who were being operated on for disease of the biliary tract. The fact that in the dog it produces, under certain conditions, liver necrosis is not reason for undue alarm. Divinyl ether failed to produce liver necrosis in the monkey under any of the conditions imposed on it. Its exact position in relation to the other general anæsthetics now being used awaits a more extensive clinical experience.

PHOTOGRAPHY

Infra-red Photography of Veins.—R. T. Payne describes, with illustrations ("Lancet," 5762, 235), three cases in which infra-red photography has been of value in investigating the superficial venous system. In one case, for instance, a photograph taken on an ordinary plate shows very little of surgical importance, while that taken on an infra-red plate shows "dilatation and tortuosity of the whole internal saphenous venous tract below the middle of the thigh, more marked on the right than on the left side." The author points out that the method may have applications in connection with the prognosis after injection of varicose veins, and in the investigation of collateral venous circulations; it may be used analytically in varicose ulcer cases; and it may be capable of extension in conjunction with the use of intravenous dyes.

Ultra-Violet Invisible Fluorescence.—At a recent meeting of the Royal Photographic Society ("Photographic Journal," March 1934) W. R. Mansfield exhibited a photograph obtained by ultra-violet invisible fluorescence. The fluorescence which was excited by ultra-violet was a transformation of the absorbed ultra-violet into a longer wavelength, giving visible fluorescence. A visible fluorescence photograph of a certain stamp indicated various details, but in the picture obtained by invisible fluorescence the original impression could be seen inside the forged overprinting. The author explained that he had coined some new words, namely, luminogram for fluorescence photographs, ultragram for photographs by reflected ultra-violet, and infragram for photographs by infra-red. The wavelengths used by Colonel Mansfield were 313 and 366, but the method by which the photograph was obtained was not explained.

Metol-Hydroquinone Developers.—W. Reinders and M. C. F. Beukers ("Photographic Journal," February 1934) show that metol alone works as a rather powerful developer at a pH value at which hydroquinone alone does not show any effect of reduction. Development with metol is possible at pH 6, whereas with hydroquinone it begins only at above pH 9. The velocity of development with hydroquinone runs up rapidly with the increase of the pH value; this acceleration being far less when using metol. Consequently the density lines for equally long development with metol and hydroquinone intersect at a pH of about 10.5 to 11. In developers with so low a pH value that hydroquinone gives almost no effect the addition of metol gives much greater increase than would be expected as corresponding to the concentration of metol. With hydroquinone alone, the first growth of the silver germ is uncommonly slow,

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

but as soon as these germs are somewhat larger the reduction goes on very quickly. The part of the metol is that it helps in the first period. The influence of hydroquinone is trifling at pH 8.99. The best proportions to use is one of metol to three of hydroquinone.

VETERINARY MEDICINE

Racing Stable Cough.—O. Waldmann, K. Köbe and J. Pape ("Berliner tierärztliche Wochenschrift," 1934, 50, 1) state that racing stable cough of the horse is an infectious and contagious disease of the respiratory tract caused by an ultraviolet, filterable virus which brings about a catarrhal bronchitis and peribronchitis in all parts of the lungs, with uniform changes in the tissues; these changes are only demonstrable histologically and are free from visible bacterial contamination. During the further progress of the disease, a widespread broncho-pneumonia may develop in the anterior portions of the lung; this lesion is associated with infection by hæmolytic streptococci and is caused in all probability by these organisms. The hæmolytic streptococci, which are associated with the secondary infection, exhibit culturally the same properties. Racing stable cough is transmissible to pigs and cattle.

"Cripples" in Lambs.—S. E. Piercy ("Veterinary Journal," February, 1934) states that while it cannot be claimed that the experiments he describes have led to specific information as to the cause of the disease known as "cripples," yet valuable information has been obtained which makes it clear that the factor originally suspected, i.e., mineral deficiency, can now be disregarded. Throughout the experiment the figures obtained for serum calcium and inorganic phosphorus have been normal, such fluctuations as were observed in all probability being within physiological limits. Feeding the special cake, rich in minerals and cod-liver oil, did not raise the blood minerals in the ewes, and did not prevent the occurrence of "cripples." Clear evidence was obtained of a mild degree of anæmia which became manifest during the later stages of pregnancy. This anæmia disappeared within two months after parturition. It is of interest to note that the special food did not prevent this anæmia. The two pastures examined are typical of large areas where this disease occurs, and though poorer in nutritive value than lower lying and improved land, show no abnormal figures. The milk from the ewes was normal, as was the blood of "crippled" lambs.

Swiss Pharmacopœia Fatty Oils, etc.

By Ernest J. Parry, B.Sc., F.I.C.

THE fatty oils of the Swiss Pharmacopœia are dealt with quite shortly in a monograph entitled "Olea Pingua," in which we are told that only expressed, and not extracted, oils are to be employed for medicinal purposes. A few general tests are included in this monograph.

Although benzoated lard is official, no standards are laid down, reliance being placed on the characters of ADEPS SUILLUS, which must have a melting point of 34°-40°, saponification value 193-197 and iodine value 59-64. The acid value must not exceed 3. A few general tests are included. The method for the determination of the iodine value is not one which has met with much official recognition. The ordinary Wij's solution is replaced by a solution of iodine monobromide, and the time for the absorption is only fifteen minutes. Considering the length of time during which iodine chloride or bromide goes on reacting—especially as a substituent—a grave element of danger is introduced with a fifteen-minute absorption, when conditions of time and temperature should not vary at all. The melting point limits are too narrow, and—at least as determined by more usual methods—so are the iodine limits.

ADEPS LANÆ.—The iodine value is given as 23-30, but no acid and no saponification values are given. This monograph is very deficient.

CETYLIC ALCOHOL.—This wax derivative is official. It melts at 48°-50° and has the formula $C_{16}H_{33}OH$. No substantial test, other than the melting point, is included, as might have been the case, for example, with the acetylation value.

CERA ALBA and **CERA FLAVA** are both official, the former melting at 63°-65°, and the latter at 62°-64°. The specific gravities respectively are 0.964-0.966 and 0.964-0.970. The acid, ester and saponification values are as follows:—

| | White | Yellow |
|--------------------------|---------|--------|
| Acid value ... | 18.5-22 | 18-21 |
| Ester value ... | 72-77 | 72-77 |
| Saponification value ... | 90-98 | 90-98 |

These are normal values.

CETACEUM.—The characters are as follows:—Melting point, 45°-52°; saponification value, 114-127; acid value, not exceeding 2; iodine value, not exceeding 8.

Special tests to detect paraffin wax and stearic acid are included. These figures are normal.

LANOLINUM is used as a synonym for an unguent consisting of adeps lanæ, water and olive oil, and not as merely meaning hydrous wool fat.

The fatty oils treated are the following:—Almond oil, arachis oil, hydrogenated arachis oil, cacao butter, croton oil, chaulmoogra oil, cod-liver oil, laurel oil, linseed oil, nutmeg oil, olive oil, castor oil and sesame oil. The characters of these oils are given as follows:—

| | S.g. | Sap. value | Iodine value | Limit of Acid No. |
|------------------------------------|-------------|------------|--------------|-------------------|
| Almond oil ... | 0.916-0.919 | 189-196 | 92-99 | 7.5 |
| Arachis oil ... | 0.915-0.918 | 190-196 | 85-92 | 6.0 |
| Hydrogenated | | | | |
| arachis oil ... [M.Pt. = 38°-41°] | | 189-195 | 63-75 | 0.5 |
| cacao butter ... [M.Pt. = 29°-35°] | | — | 34-38 | 5 |
| Croton oil ... | 0.940-0.950 | — | — | — |
| Chaulmoogra oil ... | 0.950-0.960 | 195-215 | 96-110 | 38-45 |
| Cod-liver oil ... | 0.925-0.930 | 180-190 | 156-186 | 5 |
| Linseed oil ... | 0.930-0.937 | 186-195 | 175-200 | 7.5 |
| Nutmeg oil ... [M.Pt. = 45°-52°] | | 172-195 | 30-52 | 10-23 |
| Olive oil ... | 0.915-0.918 | 185-196 | 79-84 | 5 |
| Castor oil ... | 0.960-0.970 | 172-180 | 82-86 | 7 |
| Sesame oil ... | 0.920-0.924 | 189-191 | 103-112 | 7.5 |

It is a pity that refractive indices have been omitted, as is the case with essential oils. The constants given for these oils are about normal and do not call for much comment. Genuine almond oil may have a saponification value of 200 or even 202. A saponification value should have been given for cacao butter. In addition to castor oil there is "castor oil for soap," where the saponification value is altered to 170-180 and the iodine value to 75-86. These altered figures are unnecessary and are by no means indicative of lower quality. Details of the lead salt method for the identification of arachis oil are given very fully under that oil. But under "Olive Oil" the direct solubility test for arachidic acid is employed. A positive reaction is held to indicate the presence of either arachis or soya bean oil, but no recognition of the fact that pure Tunisian olive oils frequently give a slight arachidic acid reaction is made. The hexabromide test might well have been introduced for the detection of certain oils.

Chemists

By "Fiat Justitia Ruat Coelum"

THE article by "Critique" on travellers which appeared some time ago must have provoked comment among his fellow chemists, who probably enjoyed a game of picking out the types of travellers portrayed. Will he, I wonder, appreciate the compliment paid by a reader who is a traveller (and a "toilet" man) who takes the trouble to reply? The traveller, no less than the chemist, has his peculiar encounters, and a few examples may be interesting.

There is the elderly gentleman whose windows are tastefully dressed with a dusty carboy, some ancient packed goods and a Winchester or two. "I get all my requirements from the local house," he says, and in the same breath complains illogically, but none the less bitterly, that his customers, instead of buying from him, "go to the clinic for their baby foods, and how's a man to live?" and so on *ad nauseam*. One gets away with difficulty in time to interview a Mr. Brown, who is also an elderly gentleman. Despite the fact that he has been "in this shop now for forty years" he regales you with a long story as to (1) the reason why your product is not selling, (2) what is the matter with your advertising, and (3) what he would do to put the company on its feet again. (I gather the most popular move would be first to win the chemists by giving them your products wholesale as a mark of goodwill!)

Your next call is a gentleman who has unsuccessfully tried to obtain bonus goods after the expiration of an offer, or discount after the due date—so unsuccessfully indeed that he avers the company has made a "dead set" against him (he never appreciates the inordinate conceit of the assumption that a large company should bother to pick him out from a thousand of his *confrères*); and so he decides he will not buy direct but will take his requirements from the local house. He usually winds up a long peroration with "I know it is not your fault, old man, and I am very sorry; but I am going to make them suffer," cheerfully disregarding the fact that this method of paying back results in injury, not to the company (to whom it makes no difference), but to the traveller with whom he is on quite good terms.

You breathe a sigh of relief and move on to a Mr. Harris, who has a growing business, buys just what he wants, increases a little if he can profit by it and generally behaves like a business man. He acts like a tonic on the traveller, who knows exactly where he is and what his man can and will buy. This dealer gets all the treatment the others will never get, merely because he forgets for a moment his diploma and his innate "superiority," discusses his queries, man to man, and admits quite frankly that he's wrong if so convinced.

An Anticlimax

Next an anticlimax, the gentleman who says "No thanks; not to-day," as though you were selling boot-laces or collar-studs. He will never order or even see a new line, but will just "await the demand." His colleague a little way down the street is more or less the same, except that, although he doesn't want anything, he will stand and argue for hours on end on the disgusting methods used by your company, and usually ends up with "We (the chemists) put your line on the market and that's how you treat us." The humour of this remark is only apparent to those unfortunates among my brethren on the road who have tried to push a new line against that "wait for the demand" complex. One particular gentleman who said this to me was quite nonplussed when I pointed out that he had never yet bought my line direct, nor had he displayed it particularly. He still maintained he had created the demand he was experiencing. "I am busy now, come back in an hour," says your next "call"—then promptly forgets his appointment as though it were the most unimportant thing in the world. After calling perhaps three times, you finally give it up and leave

your address, whereupon he sends an order in the following day direct to the company, who begin to wonder what Mr. So-and-so could have done to offend his customer.

Mr. Blank lives about ten miles from anywhere, buys ros. worth of goods per journey, wants it carriage paid, with a full range of showcards, and sends a request for a call to your company if you happen to miss him one journey. One such gentleman called me in this way, although he had my address, and on my arrival informed me he "had sent his order direct in the meantime as he couldn't wait." After hearing my comments on his behaviour he wrote to my company requesting that I should not call in the future. The most annoying man is he who sends first his apprentice, who, looking vacantly at you for some minutes, sends for the assistant, who in turn asks you who you are. Finally, the chemist comes himself to say "Nothing to-day, thanks" before dodging behind his dispensing screen as a precautionary measure before saying "Good day." I often wonder if he ever buys anything, and whether he follows the same rule with his customers.

There are much more pleasant types than any of these—the cheery soul who wants a sample "for the wife"—the middle-aged stay-at-home who regards the traveller as a "bit of a lad" and who would be much disappointed to discover what harmless lads we really are. There's the barker, who growls, "What! brumph, who? Brumph! What d'ye want, eh? Ha! orders, eh!"—and finally gives you an order. (I put him among the "nice lads" because whilst he barks, he never bites, and does at least buy). A really useful chap for a "toilet" man is the one who wastes no words if he can offer no order. I remember one such a customer with whom I adopted a peculiar procedure. I used to pop my head in the door—"Owt?" I'd say. "Nowt," he'd reply, and off I'd go, knowing full well that next time it would be "Hi! I want to see you"—always the prelude to an order. I hope if my friend recognises this he will preserve my anonymity.

After all, the traveller, be he toilets, packed goods or sundries, is merely doing the job the retailer does every day, selling his wares as well and as often as possible; and a traveller's call is an appreciable compliment in view of the fact that he only calls on those he thinks will have enough commercial sagacity to buy on the best terms at all times.

Double Acrostic

Uprights

My Left is Museum with Codex complete
My Right are not in every street.

Lights

1. This quality would be
That known as "C."
2. The liquid extract is rather dear,
I trust from it you'll all keep clear.
3. With S outside to finish the job
Known at Cheltenham—opt. is glob.
4. I'm in the middle—Fiddle-de-diddle!
5. Under me just put the plural,
Rare order in pharmacy rural.
6. Two words, six letters—in Latin "the lot,"
The second repeats, so now have a shot.
7. Solid with oil in middle,
This is an easy riddle.
8. Pavement and lovely blue,
Part of the optic—True!
9. A upright with bird and saintly name,
A book—a "corner house" of fame.
10. Closer than a brother
They stick to you or other.

Rambling Recollections

By an Irish Pharmacist

LOOKING out of the shop window, my attention is drawn to a young female striding up the village street attired in the modern style. I hear an old mountain woman exclaim (in a voice quite equal in volume to that of a Dublin lady proclaiming the freshness of her fish in the classical locality of Pill Lane): "Have the girls no conduct? Sure, I knew her grandmother, and far away from silk stockings she was reared, in a tumbledown thatched cabin in the mountains. The Lord be with the good old times!" And more to the same effect. The critic and the criticised have passed up the street, and I begin to think of the old woman's pious wish. My memory of the "good old times" is not one to be jubilant over. What a gay young spark the up-to-date junior is, with his self-satisfied, well-groomed appearance, his polished manner as he explains the latest improvements in cameras and films, or the smile which greets the Saturday customer taking advantage of the "week-end reduction" in her favourite candy or chocolate! Well, let us put the modern student back fifty years.

The time is 8 a.m. in the month of November. A drizzling rain is melting the snow that has fallen during the night. A poorly clad, badly nourished youth stands shivering outside the den in which he is doomed to spend four years of unending toil, waiting with five other workers for the arrival of the senior, or foreman, to open the ill-smelling premises. The senior opens the letters; the two juniors are given their tasks; the apprentice ties on his apron and begins his first lesson in practical pharmacy. He is handed a parcel and a measure glass containing mixed essential oils, and is shown an iron mortar with a heavy iron pestle. The parcel contained pulv. podophyll. resin., pulv. aloes Barb., pulv. scammon. resin., pulv. colocynth., pulv. gum. cambogiæ, pulv. capsici, pulv. sapo. Cast., and ext. hyoscyami; and the essential oils were ol. carui, ol. cassiæ, ol. caryoph., and anisi. There was 28½ oz. of powders, 2 oz. of extract and ½ oz. of mixed oils.

The apprentice, working under the supervision of a fiendish junior, who had passed through the same tasks and took a satanic delight in watching the latest addition to the staff at work, strove to get the stuff massed. At last it was finished. The foreman inspected the dark-coloured ball, using a piece of paper wrapped round one hand which rested on the pill-mass, and another piece of paper wrapped by the porter round the handle of a knife (lest by any means his delicate skin might be contaminated). He expressed his satisfaction with a surly grunt and went his way. Did he, or the owner, think of the aching back, the blistered hands or the weary steps of the tired apprentice as he passed through the door after his first day's instruction in the art and mystery of a pharmaceutical chemist?

Teaching the Apprentice

My second lesson in practical pharmacy came the next day. I entered the temple of Galen covered with snow, and when I had shaken myself free of it I was escorted to a passage through which the wind whistled. It was partly uncovered, just a yard between two houses; the walls were high and covered with snow, and on the ground it lay in drifts. I was told to bring a small table. I was handed a defective pair of scales with some pieces of lead to balance it and a two-drachm weight, and was directed by the junior to weigh the mass into portions, which were put into a kind of drawer, with some white powder to keep the pieces from sticking together. The cold of that day I will never forget. I was standing in snow with freezing feet and with hands sadly blistered from the pestle and the cayenne pepper of the pill-mass. At last the mass was weighed; a few pills taken at random were put on the scales, and I was transferred to another spot (where

the wind still whistled) and handed a pill-board and a circular piece of grooved wood which I was told was a pill-rounder. The junior showed me how to roll the pills and to use the rounder, and left me to finish as best I could. The employer himself came along in the evening, took up a handful of the pills, wiped his hands, and said I could take them into the front shop when finished and tell the foreman that he had passed them. I did not see any more of that lot of pills, as the packing into 6d. and 1s. boxes was too light work for an apprentice.

My third lesson in practical pharmacy consisted of weighing up whiting, washing soda, linseed meal and "fine chemicals" of that class. I was also instructed in the art of making chemists' parcels. (I was very slow at making a neat parcel until the master himself took me in hand one dull evening.) At 11 o'clock I was handed a letter and was told I would get a parcel, and to keep going until I got it. I was told to try Hamilton Long's, Butler's, or anywhere I could get it. Glad of a run into the fresh air I rushed out, and halfway down the street I cannoned into the "boss," who was a Scotsman. "Laddie," said he, "where be ye ganging at that gait?" I handed him the letter, saying I was going to Hamilton Long's and Butler's. "But," said he, "it has no address on. Let me see what is wanted." "Ah," he said a moment later, shaking with laughter, "the daft loons. Work I want, and not jokes." He put his hand into his pocket and handed me a shilling. "Laddie," said he, "it is worth it. Buy a few bannocks and gang doon ta Dollymount for the day by the sea. You can say to-morrow that no one had got it, and as such a thing never existed ye will be na telling a lie; but a shut mouth catches nae flies. Ye need na say yu met me." I heard afterwards that all that day he kept kicking up a row, and insisted on knowing where I had gone. I told the assistant who sent me on the fool's errand that no house in the city had such a thing as a "round square."

Powdering Aloes

My fourth lesson in practical pharmacy followed. I was handed a hair sieve, two wide-mouthed bottles each of about one-gallon capacity, with loose tin covers, and some sheets of old newspaper. I was told to carry them up a ladder to a loft, an awful hole whistling with draught. I was followed up the ladder by the senior porter carrying a box on his shoulder containing about 70 lb. (an original case) of aloes Barbadosensis. The porter took out a piece weighing about 2 lb., smashed it in pieces with a hammer, put one piece into the iron mortar, and, cursing the foreman, powdered the piece of aloes. He then spread three folds of the newspapers on an old bench, and showed me how to run the powder through the sieve. He then left me. I stuck it out until the Saturday, by which time I had filled the two bottles. The place was reeking with aloes—my clothes, my hair, even my shirt were saturated. The people in the street went into the road to avoid me. I was like a leper—unclean. On the Saturday night I had a good bath. On the following Monday I went back to the loft and the aloes. The "boss" arrived: he had an attack of bile. He had to pass through the back premises; there he got the smell of the aloes, and came up the ladder to investigate. One whiff was enough: the air was filled with particles of aloes moving freely with the draught from the window. He gave one gasp, and made for the ladder. An investigation followed, the senior porter protesting that he only carried out the foreman's orders. I believe that there was an awful scene. The governor told the porter to put me to weighing up stock and to show me how to fold parcels and other useful details in the art and mystery of a pharmaceutical chemist. I never finished that case of aloes; I never saw it after-

wards. Paraffin oil, gas tar, cart grease, putty, french polish and other such choice chemicals came my way, with a considerable amount of bird seed, soft soap and golden syrup. I was afterwards promoted to the sale of dog cakes, and the paint, varnish and lamp-wick department of pharmacy. The first year passed, I got my year's salary, £5, and I can say that I earned what I got.

One morning I did not turn up for work, and my absence was reported by the worthy foreman. He knew very well why I was not working as he had been to my house the night before. My absence was caused by my father considering it was the duty of a son to attend his mother's funeral. I was nearly dismissed for daring to absent myself without leave. This made me reflect. I talked matters over with Dr. Tichborne: I had been under his care at the Carmichael School of Medicine, and had a seat at his class at 15 North Great Georges Street. He said: "You are not fit to carry on, but you will be learning something. Come when you can, boy; some day you will have money to pay me. Stick it out and you will come out on top." Dr. Tichborne was a prince. Many faces pass before me as I write, faces of men who were always willing to help. Mr. Charles Harvey of Barrons, Harveys & Co., sent me many fine specimens, always addressed to myself and packed on top of the goods in the cask. I also got a letter telling me when to expect the samples. Mr. John Blyton, of Evans, Sons & Co., Liverpool, and others also gave me some. Old Johnny Lapkin, of Liffey Street, the medical bottle dealer, gave me a fine set of wide-mouthed bottles to keep my specimens in. Old Johnny could write a shop-round label very well, but his father was an artist. His treatment of specie jars for windows was delightful. Some of his work, I am glad to say, survives.

Qualifying Under Difficulties

I had no money to buy books. I took the 1867 B.P. home every night and transcribed the book from cover to cover, using counter bills. The second year passed; and as I could not get any chance of learning compounding, some assistants I knew took me in hand, and I got plenty of practical work at night; some "tricky" ones compounded during the day were given to me, and I was shown how to avoid traps. At last the foreman left. The "boss" was in a cleft stick: pharmaceutical chemists, fifty years ago, did not grow like blackberries, to be had for the picking. He had had ten assistants in eleven months, and found a great difficulty in getting an all-round man willing to turn his hand to anything. Dr. Tichborne "tried me very highly" on two or three occasions with men he was sending up for the L.P.S.I. examination. One day in June 1884 he told me to wait after the class. He handed me my certificate for practical chemistry saying, "You can pay me when you get a bit together. Enter for the July examination." The governor had a habit of rushing back from his dinner just before or on the stroke of 7 o'clock; and as he generally made his own special preparations after the shop closed, he generally pounced upon me to assist him. Two days after Dr. Tichborne gave me the certificate, my employer told me that the pharmaceutical chemists he had interviewed would not suit him, as none of them understood his trade. "Well, sir," said I, "you can easily get an L.P.S.I. that knows your trade from end to end, and knows all your customers if you want to get him." "Oh! that is nonsense," said he. "Not a bit of it," said I. . . "If you give me a certificate for two years and pay the £5 5s. for the examination I will pass it and fill the gap for you. As I spoke, Dr. Tichborne came into the shop. He told me to "take a grind for him" as he could not attend. I left them together. The "boss" called me next day and asked me to call a jarvey. He drove over to the Pharmaceutical Society's house and entered me for the examination, which I passed after a struggle. I was a pharmaceutical chemist with still seventeen months of my apprenticeship to serve—simply a figurehead. Although legally responsible for the working of the place, I had no authority. About ten days before my fourth year ended (and I was in receipt of £1 per week) the "boss" was in a nasty temper, and told me that as soon as I could get a situation I could leave. I got permission to go out for an hour; and was

engaged at the salary of £70 per annum, with a month's salary in advance and £5 for travelling expenses. Next day, when I was handing in the receipt for my week's wages, I handed in a week's notice. Then the row began, and continued every day during the week. He at last wrote out a testimonial for me, which was really a first-class reference. I told him what I thought of him, tore his testimonial in pieces, pitched them on the floor and walked out.

Gone are the days of the pink saucers, pomades and cosmetiques for the old lady with her bonnet and three "barrel" curls on each side. Gone are the days of the bandoline and the lady with the bustle and chignon. Gone are the days of extreme tight lacing, and the demand for asafetida and rhubarb pills or silver-coated bread pills. Brimstone and treacle have been replaced by sulphur tablets suitably flavoured. Burgundy pitch, dragon's blood and Venice turpentine, mixed and spread on a piece of corduroy, have given way to massage treatment. The jovial and gymnastic leech has passed. We no longer see the old black fly blister, the seton or the issue pea. The cupping glass and the "key" dental forceps have vanished. Gone are the days when Irish manufacturing chemists bought their supplies of medicinal plants in Ireland. Here is the weekly pay roll of a Dublin pharmacy of my early days:—

| | | | |
|------------------------|-----|-----|-------------|
| Pharmaceutical chemist | ... | ... | 6s. 10d. |
| Senior assistant | ... | ... | £1 5s. |
| Junior assistant | ... | ... | £1 0s. |
| Book-keeper | ... | ... | £1 5s. |
| Senior porter | ... | ... | 16s. |
| Two junior porters | ... | ... | 16s. |
| Total | ... | ... | £5 8s. 10d. |

I do not hear any of the managers of the up-to-date pharmacies of to-day echo the old woman's pious prayer: "The Lord be with the good old times!"

Causerie

By Critique

WHILST on the one hand we have the Pharmaceutical Society developing a superiority complex over the introduction of the new Poisons and Pharmacy Act, and others in our ranks constantly boosting pharmaceutical professionalism, yet on the other hand we have a persistent dropping of turnover, keener competition by the store chemists, and an alarming reduction in retail prices. We cannot now alter the fact that all chemists must be members of the Society, but we could alter the value we place on the professional services we render to the public if we had sufficient courage to charge the correct fees for our services. What do we frequently find? Either dispensing cut to the value of the drugs at retail price, or prices guessed at, more often under the value than over—but when over, by chance, customers are frightened away. There is no need for rough and ready pricing. Is it necessary to have reduced the prices of quite a number of drugs to pre-war prices? Shall we sell more at the reduced prices? I do not think so; and if the time comes to put the prices up much dissatisfaction will be caused. If turnover continues to fall at the rate it has done for the last six months, I tremble to think what the ultimate result will be to those with small businesses. There is no sign of rates and taxes coming down. Employees must realise that it requires no training to sell twopenny tubes of aspirin tablets and such lines, and without being aggressive commence to introduce a little salesmanship into counter work. Keener competition must be met by keener service. During slack periods we are all inclined to get lax. The less we do the less we want to do; stock is not kept so well, invoices are not checked so carefully (and when they arrive a week or more after the goods not at all). Both cases mean a loss to the proprietor. Now is the time to perfect our methods, and by careful analysis to see if we are getting the best possible results from our daily labours.

Pharmaceutical Society of Great Britain

Branch Meetings

Glasgow.—The Glasgow and South-Western Scottish Branch met at the Ca'doro Restaurant, recently, Mr. W. J. Moffat (chairman of the Branch) presiding, Professor Andrew Allison, M.B., Ch.B. (St. Mungo's College), delivered an address on

PREVENTIVE MEDICINE

[Abstract]

Preventive measures will never eliminate all disease nor abolish the use of drugs, but the vogue for drugs is naturally affected by the theory and practice of medicine. Public health medicine or preventive medicine is not a concrete science. It depends on the application of the sum total of medical knowledge, and owes much to special departments of medical science such as bacteriology, pathology, physiology, epidemiology and ancillary sciences such as chemistry, engineering, statistics. The ancient Greeks had a high regard for personal hygiene. The gymnasium was not exclusively devoted to athletic exercises, but connected on one side with education, on the other with medicine. Nevertheless, as regards drugs this was a period of credulity, empiricism and polypharmacy. Dioscorides, who was a surgeon in the Roman army, had much botanical, pharmacological and toxicological knowledge, and his writings show critical insight and carefulness of description. Stern necessity forced the rulers in the Middle Ages to pay some attention to the suppression of infectious diseases. Leprosaria or isolation camps were established throughout Europe, and by the end of the sixteenth century leprosy had largely disappeared. Bubonic plague was another disease which decimated the people of mediæval Europe. Procastorius, who was born at Verona in 1483, made important contributions to the problems of infection and contagion. It is interesting and important to note that the astute municipal authorities of Aberdeen apparently recognised syphilis as a contagious venereal disease as early as 1497. In England in the Middle Ages some slight attention was paid to general sanitation. At Stratford-on-Avon Shakespeare's father was fined for depositing filth in the public streets in 1552, and six years later for not keeping his gutters clean. In 1776 Captain Cook was awarded the Copley medal of the Royal Society for completing a voyage of three years and eighteen days in H.M.S. "Resolution" with the loss of only one man from disease out of a crew of 118. The explanation was cleanliness of quarters, personal hygiene and, even more important, the use of fresh food, animal and vegetable, whenever possible. The end of the eighteenth century and the beginning of the nineteenth century saw attempts to reform the sanitary conditions in prisons and the conditions under which industrial workers toiled. On May 14, 1796, Jenner took lymph from the hand of Sarah Nelmes, a dairymaid, who had the infection of cow-pox and with it inoculated a healthy boy of eight, John Phipps. The boy developed cow-pox, and six weeks later Jenner inoculated him with the virus of small-pox and he remained quite well. The practice of inoculation had been introduced into England by Lady Mary Wortley Montague in 1717, but the practice was discontinued because the disease produced was not always as mild as was anticipated and because the patients became a further source of the spread of infection. Orfila's "Traité de Toxicologie" (1814) was characterised by exactness in chemical technique. The first Board of Health was established in 1848 with Chadwick as one of the Commissioners. The Board lasted only six years in its original form, and Chadwick had to resign because he was too efficient and in advance of public opinion. The first medical officer of health in this country was appointed by the city of Liverpool in 1847. Louis Pasteur (1822-95) opened a new chapter in preventive medicine, and his discoveries led to further researches which have produced incalculable benefit.

After this scientific preventive medicine moved rapidly, and bacteriological science produced a bountiful harvest at the end of the nineteenth and the beginning of the twentieth centuries. After Dr. Allison had replied to the points raised in discussion, a cordial vote of thanks was accorded.

Leeds.—A special meeting of members of Leeds and District Branch was held on March 15, to hear a lantern lecture by Mr. J. H. Gough, Ph.C. (chairman of the Branch). As a change from pharmaceutical subjects, the talk and slides were on *Stowe and its Gardens*. Stowe, now a public school, was in former days the home of the Grenville family, who had a powerful political influence on the destinies of England in their day.

North-East Lancashire.—The annual meeting of the North-East Lancashire Branch was held recently, Mr. Clifford Taylor (Accrington) presiding. The chairman said he had come to the end of two years of office, and had added to his experience. It had been a term full of interesting recollections, and he had been brought into touch with manifold activities on the part of the parent body and the Branch. He thanked the secretary (Mr. F. Law) and the Committee for their loyal co-operation and help. Mr. Ralph Pickup was then appointed *President* and Mr. Taylor was appointed *Vice-President*. Mr. Pickup said he would try to merit their confidence and follow in the footsteps of his predecessors. There were many avenues in which such a Branch could be of service, not merely to the profession, but to the social life of the town in which they lived. Alderman W. H. Grimshaw was re-elected *Treasurer*; Mr. Fred Law *Secretary*; and the following were appointed the *Committee*: Accrington, Mr. S. H. Sidebottom; Church, Mr. E. Eccles; Rishton, Mr. J. Longland; Darwen, Mr. Driver; Blackburn, Messrs. H. Carter, A. Dobson, J. Turnbull, and J. Walton.

Portsmouth.—A meeting of the Portsmouth Branch was held on March 14, to hear an address by Mr. W. J. Beardsley (a member of the Society's Council). Mr. F. Hemming (chairman of the Branch) presided over a good attendance. Mr. Beardsley took as his subject *The Future of British Pharmacy*, and said it was necessary to make a brief *résumé* of its past history. Since the inception of the Society no one could deny that a steady progress had been made in the development of the profession. The Pharmacy and Poisons Act had the definite action of unifying all pharmacy Acts, and had taken from the Society the function of the grading of poisons. The Statutory Committee had not yet been set up. Mr. Beardsley said they must press for a National Health scheme which would include the workers and their dependants. They must not rest until the right of all dispensing, the control of clinics and other sources of supply of medicaments were in the hands of their members. They must continue to uphold the standard of training and to bring the profession into high repute.

Torquay.—At a meeting of the Torquay and District Branch, held on February 28, the apprenticeship scheme was discussed. Mr. March (chairman) presided. The scheme was generally approved of, but it was agreed that the clause reading "... to observe such rules as may from time to time be prescribed ..." should be modified to read "... to observe the rules hereunder prescribed." It was decided after a keen discussion that the number of apprentices employed should be rigidly controlled. It was agreed that many pharmacies have facilities for training a number, while others of equal size have not the facilities for training one properly. During apprenticeship, which should be for a period of four years, notebooks should be strictly kept and submitted to the Education Committee at the end of the period. If the Committee was satisfied with the work done by the student, a certificate should be issued declaring the pupil fit to conclude his course of study. On the other hand, if the record of work was not satisfactory, advice of the right type could be extended to the

pupil. The Branch approved of Matriculation as the standard for the Preliminary examination. The Preliminary Scientific examination should be taken during or subsequent to apprenticeship.

Wrexham.—The Wrexham Branch held a meeting recently to hear a lecture by Mr. H. Humphreys Jones, F.I.C., Ph.C. (principal of the Liverpool School of Pharmacy), on *The Pharmacy and Poisons Act*. Mr. Humphreys Jones, in a lucid and interesting manner, detailed some of the most important features of the new Act, and its possible reaction on pharmacy in the near future. He pointed out that it was impossible to foresee what benefit would be derived from the change, and while certain that compulsory membership meant strengthening the powers of the Society, he was not certain that everything was going to work out for the betterment of the pharmacist from a business point of

view. His fear arose from not knowing what the Poisons Board would recommend, for, while tightening up the sale of "dangerous" drugs, it was possible that licences to sell various poisons, now only saleable by registered pharmacists, might be given to general traders, and the chemist would thus lose business. Mr. Humphreys Jones also briefly dealt with the disciplinary powers of the Society. Prescribing, and the position of the pharmacist as regards the selling of poisons to doctors, veterinary surgeons and dentists, was also explained by Mr. Humphreys Jones. At question time, an important point was raised by Mr. Knox Mawer regarding the indiscriminate granting of the right to sell dangerous veterinary poisons to general traders. The chairman was Mr. C. G. Caldecott, and short speeches of welcome and thanks to the speaker were made by Mr. Knox Mawer (L. Rowland & Co., Ltd.), Mr. Langshaw Rowland, Mr. J. H. Francis and Mr. H. S. Francis.

Festivities

South-West London Whist Drive

THE South-West London Chemists' Association held a whist drive on March 21, in aid of the Pharmaceutical Society's Benevolent Fund. The following were the prize-winners:—*Ladies*, Miss Sproule, Miss Rattery, Mrs. Browne, Miss Gentle, Miss Davies, Mrs. Starke, and Miss Oyston. *Gentlemen*, Messrs. Stevenson, Inglis, Hope-Evans, Wart, Pitney, Winter and Loxley.

Hull Association Whist Drive

THE annual whist drive of the Hull Chemists' Association was held on March 22. The prize-winners were as follows:—*Ladies*, Mrs. Battarbee, Miss Atkinson, Mrs. Butterworth, Mrs. Moore, Mrs. Campbell, Miss Collier, Miss Evans, Mrs. Selby, Miss Fanthorpe, Mrs. Nettleton and Mrs. Spink. *Gentlemen*, Messrs. T. Brown, Hewitt, Brocklehurst, Rodgers, A. Bays, Pitts, T. Smith, Greenwood, Risdale and Nightingale.

Welsh College of Pharmacy Reunion

A SUCCESSFUL reunion dinner of past students of the Welsh College of Pharmacy took place on March 22, at the Boulogne Restaurant, London, W.1. There was a company of nearly fifty pharmacists, representing all sections of the profession. Principal Charles Coles, of Cardiff Technical College, was unavoidably detained, but Mr. Rees Vernon Lloyd (head of the Welsh College of Pharmacy), Mr. Malcom Davies and Mr. Loveday Jones were present, having travelled from Cardiff. A telegram of good wishes was received from the Welsh Pharmacy Students' Association. The speakers included Mr. R. V. Lloyd (chairman), Messrs. Wesley J. German (who organised the reunion), Malcom Davies, Loveday Jones, and F. C. Highfield. An interesting address was given by Mr. Hope Evans on "The Aims and Purposes of the Pharmacy League," and a vote of thanks was proposed by Mr. Hal Roberts. It was decided to make this reunion an annual affair, with a possible one or more meetings between. The following Committee was formed to make arrangements:—Messrs. Cyril Thomas, T. Evans, O. F. Morgan, W. Edwards, J. Rees and Wesley German. A letter of greeting, signed by those present, was sent to Principal Coles.

Eight Till Two

THIS season the Western (London) Pharmacists' Association have given their members a surfeit of sociality. Not that any member or friend who attended the various functions has raised objections; on the contrary, all have been pleased. The closing "fling" took place at the Criterion Restaurant on March 22, when a company of about 200 danced a good deal, in the interval consumed a substantial late dinner (playfully called a "supper"), applauded a cabaret entertainment, and a

section of the ladies present collected a number of prizes presented by various firms. The honours were done by the president (Mr. Gwilym Thomas) and Mrs. Thomas, with the indefatigable support of Messrs. P. D. Goodwin and Clifford Evans, the social secretaries. In the company were a host of well-known pharmacists and their wives, including Mr. and Mrs. Herbert Skinner, Mr. and Mrs. C. A. Noble, Mr. and Mrs. J. C. Young, Mr. and Mrs. W. E. Cane, Mrs. D. C. Janis, Mr. B. R. Wilkinson, Mr. W. B. Falding, and Miss Hodgkinson (president of the Women Pharmacists' Association). The lucky winners in the prize distribution were:—Miss Hodgkinson, Miss Noble, Miss Johnson, Mrs. Smith, Mrs. Galloway, Mrs. Price, Mrs. Webb, Mrs. Harwood, Mrs. Noble, Mrs. Ritchie, Mrs. Curtis. Prizes were given by J. & E. Atkinson, Ltd.; Butler & Crispe; Coty (England), Ltd.; Guerlain; Harriett Hubbard Ayer, Ltd.; Morny, Ltd.; Parfumeries de Paris, Ltd.; Potter & Moore, Ltd.; Roger & Gallet (London), Ltd.; R. J. Reuter Co., Ltd.; Vinolia Co., Ltd.; Yardley & Co., Ltd.

Nottingham and District Dinner

THE annual dinner of the Nottingham and District Branch of the Pharmaceutical Society was held at the Welbeck Hotel on March 22, Mr. E. C. Carr presiding. Among the visitors were Principal Stewart (University College) and Mr. R. R. Bennett. The toast of "The Pharmaceutical Society" was proposed by Mr. W. J. Clay, who said that a very active member of the Branch, Mr. A. E. Beilby, was registered so long ago as 1875. Mr. E. Saville Peck (vice-president of the Society), who responded, said that the record of the Society's history was the record of the crises through which it had passed. He thought the appointments which had been made to the Council by the Home Office would be altogether to the advantage of the Society, and he looked forward to the time when pharmacy would be reserved to the pharmacist to a greater extent than at present. Principal Stewart proposed "The Nottingham and District Branch," and in doing so spoke of the great assistance the advisory committee rendered the College so far as the pharmacy students were concerned. Mr. Carr replied, and mentioned the fact that so far back as 1874 the council of the local Association had guaranteed a sum towards a course of lectures on botany and pharmacy. Mr. F. W. Shepherd and Mrs. E. C. Carr, respectively, admirably proposed and responded to the toast of "The Ladies." In introducing Mr. H. P. Middleton, who proposed "The Visitors," the chairman said that Mr. Middleton and his late father had between them occupied the post of treasurer to the Branch for something like fifty years. Mr. T. L. Bailey (president of the Mansfield and District Branch), whose name was coupled with the toast, said he thought it would be to their mutual advantage if the branches co-operated as closely as possible, as most of the county students ultimately got to University College, Nottingham.

Association Meetings

Aberdeen.—The members of the Aberdeen Pharmaceutical Association held their ninety-sixth annual meeting on March 13. There was a good attendance, and Mr. M. K. Watt (president) was in the chair. The annual report, which showed the Association to be in a flourishing condition with a membership of seventy, was agreed to. The reports of the various committees were considered satisfactory and adopted. The report by Mr. Robert Hunter in connection with his work on P.A.T.A. matters was particularly interesting. Votes of thanks were given to the retiring president and the conveners of the various committees. Office-bearers for the ensuing year were appointed as follows:—*President*, Mr. J. G. Mutch; *Vice-President*, Mr. W. G. Mitchell; *Treasurer*, Mr. A. A. Meldrum; *Secretary*, Mr. H. M. Dugan, 275 Holburn Street; *Auditor*, Mr. M. K. Watt, with Messrs. Charles Simpson and W. F. Hay as members of the *Executive*.

Enfield.—A meeting of the Enfield and District Chemists' Association was held on March 6 to discuss the possibility of the supply through chemists of goods at present distributed by welfare clinics. The local medical officer of health, Dr. Geffen, addressed the meeting on *Public Health and Private Enterprise*. Dr. Geffen gave a short history of public health work. Turning to modern times, he showed how necessary it was to have (a) maternity welfare, (b) an education committee, (c) a school clinic. Regarding maternity centres, their great work was to reduce infant mortality, and whereas previously out of 1,000 babies born 150 died before the first year, this number had been reduced to 50. There were four welfare clinics in Enfield, and anybody had a right to take their children. Infant foods were supplied at special welfare rates in special packets. There were three prices. With two of these a form had to be filled declaring income of the family, the declarations having to be verified by a clerk employed by the Council, before chits were given allowing the mother to receive dried milk at half price or for nothing. Dr. Geffen wondered whether the Enfield Council would be prepared to allow chemists to supply the food, thereby taking the small profit which was absorbed by the cost of the clerk employed. After discussion it was decided that the executive committee should work out a scheme and submit it to the Council.

London (N.).—The monthly meeting of the North London Pharmaceutical Association was held on March 20, the president (Mr. W. E. Swanston) in the chair. There was a large audience. After the correspondence was dealt with the president introduced Mrs. H. E. Skinner, who read a paper on *Dispensing Difficulties* (see p. 355). In the discussion which followed Mr. Swanston spoke of saponin. Mr. Weiss considered that the zinc oxide and oil in one formula really made a "wet white" containing a small quantity of lanolin, and he considered the amount should be increased. Mr. Steele brought forward several N.I.F. mixtures and gargles, which, he said, were unsatisfactory. Mr. Harrison asked how to make carron oil that would keep. The suggestion was that 10 per cent. carbolic oil is an improvement. A general discussion from quite half the members proved very interesting and covered a wide field. The president moved a hearty vote of thanks to Mrs. Skinner.

Manchester.—A joint meeting of the Manchester Pharmaceutical Association and the local Branch of the Pharmaceutical Society was held at the Victoria Hotel on March 1. Mr. J. H. Franklin (chairman of the Branch) presided over a good attendance of members, and introduced Mr. G. R. Boyes, B.Sc., who dealt with *Glands and Gland Preparations* in a very able manner. Mr. Boyes dealt not only with the gland preparations of the British Pharmacopœia but also with a much wider aspect of this subject. Interesting and pertinent questions were asked by Messrs. Franklin, Walmsley, Grier, Brindle and others, to which Mr. Boyes replied. Mr. Simmons paid a warm tribute to Mr. Boyes for the admirable service he had given in connection with the

British Pharmaceutical Codex. Mr. Brindle moved a hearty vote of thanks to Mr. Boyes. A vote of thanks was also accorded to the lanternist, Mr. Phillipson.

Public Pharmacists.—A meeting of the Liverpool Branch was held on March 8 in the Royal Institution, Mr. Henriksen in the chair. There was a good attendance. Dr. Hugh Smith (honorary pathologist and bacteriologist to the General Hospital, Birkenhead) delivered a lecture on *Vaccines and Serums, their Preparation and Use*. After giving a clear definition of a vaccine, Dr. Smith proceeded to enumerate the several processes in its preparation, taking several typical examples to illustrate his remarks. He devoted a considerable time to the subject of autogenous vaccines, prepared from organisms collected by means of platinum wire from the patient—a branch of vaccine therapy which is gaining rapidly in importance. He emphasised the importance of a correct dose. Sensitised and detoxicated vaccines were discussed before proceeding to the subject of serums. After giving interesting examples of these groups, the lecturer explained the urgency of giving sufficiently large doses to the patient, the chief danger from a large dose being anaphylaxis, which could be overcome by an immediate injection of adrenalin. Questions were asked by several members, and were answered by Dr. Smith. A vote of thanks was proposed by Mr. Rae.

Reigate.—A meeting of the Reigate, Redhill and District Pharmacists' Association and Branch was held on March 22, when Mr. P. J. Thompson (The British Drug Houses, Ltd.), gave a lantern lecture on *The Manufacture of Galenicals*. The lecture was well attended and much appreciated, and a hearty vote of thanks to Mr. Thompson and The British Drug Houses, Ltd., was proposed by Mr. Bush.

National Pharmaceutical Union

Branch Meetings

Bradford.—A meeting of the Bradford Branch was held on March 8, under the chairmanship of Mr. R. Booth, to hear an address by Mr. W. Forster, a member of the Executive of the Union. Mr. Forster's subject was the present situation in respect of industrial methylated spirit, Licensing Acts, etc. He outlined briefly the genesis of a suitable formula of methylated spirit for surgical purposes, speaking of the negotiations which had been involved in the production of the Regulations and the establishment of a formulary. Incidentally, said Mr. Forster, this had resulted in cheapening the price of the spirit. The speaker emphasised the importance of labelling preparations containing industrial spirits clearly and unmistakably as for external use only. This should apply also to the bottle when dispensing doctors' prescriptions containing industrial spirit. It was not necessary to keep special records when the spirit was used in dispensing, but an accurate record must be kept of any sales of the spirit as such. On the subject of Board of Customs exemptions in respect of medicated wines, he reminded chemists that such exemptions do not necessarily embrace an exemption from the magistrates' licence in respect of wines. It had been suggested that the Board of Customs and the licensing authorities might reasonably get together and define what actually was a medicated wine such as might be sold by the qualified chemist without the necessity of a magistrates' licence. At the conclusion of his address Mr. Forster was asked and answered a large number of questions, and was awarded a hearty vote of thanks on the proposition of Mr. W. Sutcliffe.

Leeds.—A general meeting of the Leeds Branch was held on March 13, Mr. N. H. Burns in the chair. The speaker was Mr. T. P. Ridsdale, who took for his subject *Scientific Photography*. Mr. Ridsdale dealt especially with photo-micrography, x-ray and infra-red photography. A vote of thanks was proposed by Mr. Armistage. In reply, Mr. Ridsdale said his thanks were due to Ilford, Ltd., for the loan of many of the prints and negatives.

Chicago World's Fair Exhibition, 1933

By Jack L. Barnett

LEAVING my hotel, I reached the great Chicago World's Fair Exhibition. In front of the main entrance were any number of cheap-jack stands, selling postcards, jazz trumpets, and so forth. I thought this spoiled the look of it, especially at a main entrance of a World's Fair Exhibition. I paid my fifty cents, went inside, got a guide book and started going round section by section. As the visitor enters the Exhibition, he comes through the turnstiles and finds himself in a large circus-shaped entrance, with avenues running off all ways. Buses start from here and take him all over the Exhibition, which is numbered from 1st Street to 69th Street; the bus stops at all these streets, people getting on and off. The buses charge ten cents for this. To the right and left of the entrance are little stalls selling ice cream, Hamburgers, sausages called hot dogs, ginger beer, and "Coca Cola," which seems to have the run in Canada and

America. It has a sweet caramel taste and is brown in colour. In front of the entrance is the Avenue of Flags, with the Hall of Science at the top.

From an educational point of view the Exhibition is a marvellous success. Every exhibit is working, showing the progress in 100 years in medicine, electricity, etc. The exhibits are worked by electricity and with the aid of robots and radio. Loud speakers are all over the grounds. Suddenly you will hear "Attention, please! Will Mr. So-and-so from Kansas City please



MR. J. L. BARNETT

'phone such-and-such a number as he is wanted urgently.' I listened to an orchestra of 100 vibro-phones—no other instruments; it was marvellous and a mellow tone. By the way, this and any other orchestra are usually broadcast all over the grounds. I proceeded up what they call Middle Way, where is found a regular fair ground or amusement park, with all kinds of side-shows. The admission charges vary from 10 cents to 25 cents. I visited one show called "the Missing Link." This was a coloured man lying in a box 7 ft. long by 2½ ft. wide and about 4 ft. high, and above that railed in.

Cheap-Jack Shops

In this Middle Way were all kinds of cheap-jack shops selling all kinds of supposed novelties, and all more or less alike. I should say that all were cheap imported goods from Germany, Czechoslovakia and Japan; and in many different countries' exhibits the same goods were offered as products from the country in question. The restaurant accommodation was not too good, in my opinion, and the prices were high.

The Andy and Amos Sky ride comprised two large metal towers, built up on either side of the lake, about 600 ft. high. "Elevators" took one to the top of either tower, where a good view of the Exhibition was obtained; two-thirds of the way up wires were drawn across from tower to tower, and cars were run by electricity on these wires. Also running all day were two Zeppelins and a seaplane, which carried passengers over the Exhibition in short flights. The Exhibition officially closes at midnight, but it is usually 2 a.m. before it really closes.

Getting back to the hotel was no easy matter, as all taxis were in great demand; but I heard a voice from a loud speaker call, "Come over here and get to the city on a miniature railway for 10 cents." I went across and found it stopped about 100 yards from my hotel: I was told to ask the driver to stop there specially, which I did. When I got off I had to cross a main road from the Exhibition, where I saw more taxis and private cars in motion than I have ever seen in all the towns in England put together. Here I was held up for at least five minutes—it would have been sheer madness to attempt to cross that swift moving mass of cars—when suddenly I heard a police whistle; a policeman appeared from nowhere, and at once all the traffic came to a standstill, enabling me and a few others to walk across a very wide street.

The next day I went again to the Exhibition. I studied the different exhibits carefully, but saw nothing that we have not got in England. The chemist's trade in the United States is a very weak spot indeed, and I did not see one stall specialising in chemists' goods only. I think that with the wonderful lines in packed toilet goods, etc., we have in our country there should be a big opening for any enterprising firms to sell out there. There is also, in my opinion, a good opening in Canada. I visited Pittsburgh, Columbus, Ohio, Philadelphia and New York, and in all these places the drug trade is taking a very back seat, and in my opinion could, and should, be developed by English firms.

A Summing Up

Summing up the Exhibition: from an educational point of view it is a marvellous success, but from a general business point of view I should say it is a failure. I saw paper made direct from the wood pulp, which is a liquid. I was given a sample of this paper actually made in front of my eyes. They also make a special paper for cooking. This is said to keep the nutriment of the food in the meat or fish being cooked. The Hall of Science is certainly marvellous. Here I listened to a lecture, and saw some wonderful demonstrations on the different vitamins in food; this was carried out by a robot lecturer, worked by electricity and radio. The robot asked us, after showing the different foods in cases, to look at his stomach and see how the different foods act; the inside lit up and showed the entire working of the stomach.

Once more I visited the Exhibition. I witnessed a rodeo, which was held in the afternoon in what they call "Soldiers' Field." This is a large stadium similar to what we have at Wembley, and I must say this show was very exciting. They held competitions in calf catching, steer riding, steer throwing, and wild horse riding. I saw a steer thrown by a cowboy in 14½ seconds, and he was the winner. A calf was lassoed and its feet tied together in from 22½ to 30 seconds. There is a permanent building called Adler's Planetarium, which I visited. This is a very large, round, domed building, and in the centre is the Planetarium. The room is placed in darkness and the instrument acts like a lantern in the dome, turning it into a replica of the heavens. The lecture was given in the simplest of language, and any child could have followed it. I enjoyed my visit here.

I found on my travels in Canada and the United States that chemists' shops hardly exist as chemists' shops. Drugs are a back number, and all the chemists' shops that I came across specialise in cigars, cigarettes and soda fountains. Cosmetics, perfumes, hair creams, brilliantines and shampoos were apparent by their absence. There is a very big opening in Canada as well as the United States for these commodities. We in England can congratulate ourselves on having a big variety of toilet lines packed in the finest way.

Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude drugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values

28 Essex Street, W.C.2, March 28

THE slowing down of business prior to the holidays has been a general feature this week. In the pharmaceutical chemicals markets the group of OPIUM products have had to be advanced by the home manufacturers on account of the substantial increase in the cost of the basic product. As forecasted last week, sales prices for phenazone and amidopyrin have been put on a sterling basis, the former gold prices being cancelled. The change-over shows a slight increase in costs. There is not much of interest to comment on in the crude drugs markets, and business has been on modest lines and mostly for spot goods. BUCHU is steady at good figures for shipment of new crop. CHAMOMILES have been taken out of bond on payment of 10 per cent. duty. Bergen reports another bumper catch of cod with the resultant oil produced this season nearly up to normal. TRAGACANTH has been quieter, but is very steady on spot. WAXES are all firm with supplies of CARNAUBA scarce. In the essential oils market the chief feature has been a sharp advance in shipment offers of French Guinea ORANGE. Bourbon GERANIUM is quoted dearer at origin, but little interest is shown. PETITGRAIN and SPEARMINT are slightly cheaper on spot.

Exchange Rates on London

THE following is a list of the chief Continental and other exchange rates at the opening on Wednesday morning:—

| Centre | Quoted | Par | March 28 | Value of the £ |
|----------------|-------------|---------|----------|----------------|
| Amsterdam ... | Fl. to £ | 12·107 | 7·58 | 12/6½ |
| Berlin ... | Mks. to £ | 20·43 | 12·85½ | 12/6½ |
| Brussels ... | Belgas to £ | 35 | 21·88 | 12/6½ |
| Copenhagen ... | Kr. to £ | 18·259 | 22·39½ | 24/8 |
| Lisbon ... | Esc. to £ | 110 | 109½ | 19/11 |
| Madrid ... | Ptas. to £ | 25·22½ | 37½ | 29/7½ |
| Milan ... | Lire to £ | 92·46 | 59½ | 12/5½ |
| Montreal ... | Dol. to £ | 4·86½ | 5·10 | 20/11½ |
| New York ... | Dol. to £ | nominal | 5·10 | 20/11½ |
| Oslo ... | Kr. to £ | 18·159 | 19·90 | 21/11 |
| Paris ... | Fr. to £ | 124·21 | 77½ | 12/5½ |
| Prague ... | Kr. to £ | 164·25 | 122½ | 13/11 |
| Stockholm ... | Kr. to £ | 18·159 | 19·39 | 21/4½ |
| Warsaw ... | Zloty to £ | 43·38 | 27 | 12/6½ |
| Zurich ... | Fr. to £ | 25·22½ | 15·80 | 12/6½ |

Bank rate 2 per cent.

Pharmaceutical Chemicals, etc.

A NUMBER of important alterations in sales prices are recorded this week. British makers' scales for Morphine salts and derivatives, Codeine, Papaverine, etc., have been increased on account of recent advances in opium. As forecasted last week, spot prices for Amidopyrin and Phenazone have been put on a sterling basis, the old gold prices having been cancelled.

AMIDOPYRIN.—As anticipated last week, the ex warehouse, London, prices have been put back on a sterling basis, the gold prices being cancelled. The new scale is as follows:—crystals, five cwt., 18s. 9d.; two cwt., 19s. 1½d.; less than two cwt., 19s. 5½d. per lb. Powder, 2½d. per lb. extra.

APOMORPHINE HYDROCHLORIDE.—Makers notify an increase in price to 88s. 8d. per oz., with rebates for quantities in excess of 4 oz. Distributors' prices for small quantities would be at higher figures.

ASPIRIN.—Business is on modest lines with the market lacking confidence: home trade, ten cwt., 2s. 7d.; five cwt., 2s. 8d.; one cwt., 2s. 8½d.; 28 lb., 2s. 9d.; 14 lb., 2s. 10d.; 7 lb., 3s.; 4 lb., 3s. 2d.; 1 lb., 3s. 4d. per lb. Bulk packing free, net, carriage paid. Contracts: Over twelve months, minimum, one ton; over six months, less than one ton.

BARBITONE.—Spot offers are steady and cheaper than forward quotations; business quiet: spot, one cwt., 13s. 2d.;

56 lb., 13s. 4d.; 14 lb., 13s. 6d.; small parcels, up to 14s. 3d. per lb.

BISMUTH SALTS.—Makers' scales of prices for these salts are fully steady at former rates. Carbonate, one cwt., 7s. 8d. per lb.

BROMIDES.—Inquiry continues on a fair scale and quoted prices are about steady: ammonium, not less than five cwt., 1s. 9d.; one cwt., 1s. 10d.; 28 lb., 2s. 1d.; smaller quantities, 2s. 5d. per lb.; potassium B.P. crystals and granular, not less than five cwt., 1s. 6d.; one cwt., 1s. 7d.; 28 lb., 1s. 10d.; smaller quantities, 2s. 2d. per lb.; sodium B.P., not less than five cwt., 1s. 8d.; one cwt., 1s. 9d.; 28 lb., 2s.; smaller quantities, 2s. 4d. per lb., without engagement. Special prices for larger quantities.

CAFFEINE.—Dealers' prices for Continental material to come forward, as follows: 250 lb., 6s. 6½d.; 100 lb., 6s. 8½d.; 50 lb., 6s. 11d.; less than 50 lb., 7s. 1d. per lb. Citrate, 250 lb., 5s. 5d.; 100 lb., 5s. 5½d.; 50 lb., 5s. 7d.; less than 50 lb., 5s. 8½d. per lb., net, carriage paid on minimum 50 lb. lots. Packages from 5 lb. and upwards free.

CHLORAL HYDRATE.—Rather more inquiry, market steady as quoted: duty-paid crystals, in 14 lb. free containers, five cwt., 3s. 1d.; one cwt., 3s. 2d.; 28 lb., 3s. 3d.; 14 lb., 3s. 3½d. per lb.; 28 lb. jars, one penny per lb. extra.

CITRIC ACID (B.P. CRYSTALS).—British makers' quoted price is keeping steady at 9½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers' prices for Continental material are keen.

CODEINE.—Makers' scales of prices have had to be advanced, as follows: ALKALOID, cryst. and precip., 20s. 6d.; Hydrochloride, 17s. 9d.; Sulphate, 17s. 9d.; Phosphate, 15s. 6d. per oz., for maximum 4 oz. lots, net. Rebates for bulk quantities, as follows: 250 oz., 10 per cent.; 100 oz., 7½ per cent.; 35 oz., 5 per cent.; over 4 oz., 2½ per cent. Assorted salts on same terms. Fall clause on contracts for 100 oz. and upwards, delivery over six months. Distributors' prices for small quantities would be at higher figures.

COTARNINE.—Makers notify an increase in price to 14s. 2d. per oz., with rebates for quantities in excess of 4 oz. Distributors' prices for small quantities would be at higher figures.

CREAM OF TARTAR.—The home trade price for 99 to 100 per cent. British material is very steady as quoted at 82s. per cwt., less 2½ per cent. discount, nominal and without engagement.

CREOSOTE (B.P.).—A fair business is reported with dealers' prices for bulk quantities in 25 kilo. demijohns, about 1s. 10d. to 1s. 10½d. per lb., landed. Higher prices for small parcels.

GUAIACOL CARBONATE.—Some spot offers are below forward prices. To arrive: two cwt., 9s. 8d.; one cwt., 9s. 10d.; smaller parcels, up to 10s. 3d. per lb.

HEXAMINE.—Business is moving on a fair scale at keen prices: British-made free-running crystals, five cwt., 1s. 8½d.; two cwt., 1s. 9d.; one cwt., 1s. 9½d.; smaller parcels, up to 2s. per lb. Rough powder, 1s. 5d. to 1s. 6d. per lb. Some imported material about competitive.

HYDROQUINONE.—Seasonal inquiry is fairly good with quoted prices for one delivery and for contracts keeping steady.

IODIDES.—Makers state their scales of quoted prices are generally unchanged.

METHYL SALICYLATE (B.P.).—Prices for this article are unchanged on quotation: ten cwt., 1s. 5d.; five cwt., 1s. 5½d.; one cwt., 1s. 6d.; less than one cwt., 1s. 7d.; small quantities in bottles, up to 2s. per lb.

METHYL SULPHONAL.—Spot offers tend to close up to replacement costs; to arrive: two cwt., 19s. 6d.; one cwt., 20s.; 56 lb., 20s. 6d.; small parcels, up to 21s. 6d. per lb.

MORPHINE SALTS AND DERIVATIVES.—On account of the recent substantial advances in opium and sterling exchange depreciation, makers notify they have had to increase their prices for these products as follows: MORPHINE AND SALTS: Alkaloid precip. MECONATE and TARTRATE (neutral), 27s. per oz. ACETATE, HYDROCHLORIDE and SULPHATE, 21s. 8d. per oz. MORPHINE DERIVATIVES: DIACETYL, 29s. 3d.; DIACETYL HYDRO-

CHLORIDE, 26s. 7d. per oz. These prices are for maximum quantities of 4 oz., net, 30 days. The following rebates for larger quantities: 250 oz., 10 per cent.; 100 oz., $7\frac{1}{2}$ per cent.; 35 oz., 5 per cent.; over 4 oz., $2\frac{1}{2}$ per cent. Fall clause for contracts of 100 oz. and upwards, delivery over six months. Orders for assorted salts on the same terms, except for 4 oz. or less. Distributors' prices for small lots would be dearer.

NARCEINE.—Makers notify an increase in price of pure and hydrochloride to 27s. 8d. per oz., with rebates for quantities in excess of 4 oz. Distributors' prices for small quantities would be at higher prices.

NARCOTINE.—Makers notify an increase in price to 6s. 4d. per oz., with rebates for quantities in excess of 4 oz. Distributors' prices for small quantities would be at higher figures.

PAPAVERINE.—Makers' prices have had to be increased, as follows: Pure and Sulphate, 14s. 2d.; hydrochloride, 13s. 2d. per oz., net, for maximum 4 oz. lots. Rebates for bulk quantities, as follows: 250 oz., 10 per cent.; 100 oz., $7\frac{1}{2}$ per cent.; 35 oz., 5 per cent., and over 4 oz., $2\frac{1}{2}$ per cent. Assorted salts on same terms. Fall clause on contracts for 100 oz. and upwards, delivery over six months. Distributors' prices for small lots would be dearer.

PHENACETIN.—A fair business is reported and prices are keeping steady: crystals or powder, five cwt., 3s. 7 $\frac{1}{2}$ d.; two cwt., 3s. 9d.; 56 lb., 3s. 10 $\frac{1}{2}$ d.; smaller parcels, up to 4s. 3d. per lb.

PHENAZONE.—The new scale of spot prices on a sterling basis are as follows, the old gold figures being cancelled: crystals, five cwt., 10s. 7 $\frac{1}{2}$ d.; two cwt., 10s. 10d.; less than two cwt., 11s. 1d. per lb. Powder, 2 $\frac{1}{2}$ d. per lb. extra.

PHENOLPHTHALEIN.—Makers' scales of prices steady, business quiet: five cwt., 2s. 8d.; two cwt., 2s. 9d.; one cwt., 2s. 10d.; 28 lb., 3s.; 14 lb., 3s. 1d.; 7 lb., 3s. 2d.; smaller parcels, up to 3s. 6d. per lb.

POTASSIUM SULPHOGUAIACOLATE.—Dealers' spot prices range from about 6s. 4d. to 6s. 6d. per lb., as to quantity. Market dull.

QUININE SALTS.—Sulphate, 2s.; bisulphate, 2s.; ethyl carbonate, 2s. 7 $\frac{1}{2}$ d.; salicylate, 2s. 8d.; phosphate, 3s. 1d.; hydrochloride, 2s. 6 $\frac{1}{2}$ d.; bihydrochloride, 2s. 9 $\frac{1}{2}$ d.; hydrobromide, 2s. 6 $\frac{1}{2}$ d.; bihydrobromide, 2s. 9 $\frac{1}{2}$ d.; valerianate, 3s. 5 $\frac{1}{2}$ d.; hyposulphite, 3s. 8 $\frac{1}{2}$ d.; alkaloid, 2s. 9 $\frac{1}{2}$ d. per oz., carriage paid on bulk quantities.

SALICYLIC ACID (B.P.).—Quoted prices are unchanged, market is not steady: five cwt., 1s. 7d.; one cwt., 1s. 7 $\frac{1}{2}$ d.; 28 lb., 1s. 8d.; 14 lb., 1s. 9d.; 7 lb., 1s. 11d.; 4 lb., 2s. 1d. per lb. Higher prices for smaller quantities.

SANTONIN.—The market is dull and spot offers are in the region of £17 5s. to £17 10s. per kilo., as to quantity.

SODIUM BENZOATE (B.P.).—Business continues about average: cwt. lots, 1s. 7d.; smaller parcels, up to 2s. per lb. Keen prices for bulk quantities.

SODIUM DIETHYLBARBITURATE.—A limited inquiry, market steady: spot, one cwt., 13s.; 56 lb., 13s. 3d.; 28 lb., 13s. 6d.; 14 lb., 13s. 9d.; 7 lb., 14s.; smaller parcels, up to 15s. per lb.

SODIUM SALICYLATE (B.P.).—Makers' quoted prices unchanged, market unsteady. Continental material not competitive: home trade, powder or crystals, one ton, 1s. 8d.; five cwt., 1s. 8 $\frac{1}{2}$ d.; one cwt., 1s. 9d.; 28 lb., 2s.; 14 lb., 2s. 2d.; 7 lb., 2s. 3d.; 1 lb., 2s. 6d. per lb., with smaller quantities at higher prices.

SULPHONAL.—Dealers' spot prices are as follows, a little business moving: crystals, two cwt., 15s. 6d.; one cwt., 16s. 2d.; 56 lb., 16s. 6d.; smaller parcels, up to 17s. 6d. per lb., with powder 2d. per lb. extra.

TARTARIC ACID (B.P. CRYSTALS).—British makers' quoted prices are very steady at 1s. 0 $\frac{1}{2}$ d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers' prices for Continental material are dearer.

THEOBROMINE.—Continental material to come forward is steady at the recent advance: pure, 250 lb., 6s. 6 $\frac{1}{2}$ d.; 100 lb., 6s. 8 $\frac{1}{2}$ d.; 50 lb., 6s. 11d.; less than 50 lb., 7s. 1d. per lb. Sodium salicylate, 250 lb., 6s. 4 $\frac{1}{2}$ d.; 100 lb., 6s. 5 $\frac{1}{2}$ d.; 50 lb., 6s. 6 $\frac{1}{2}$ d.; less than 50 lb., 6s. 7 $\frac{1}{2}$ d. per lb., net, carriage paid on minimum 50 lb. lots. Packages from 5 lb. upwards free.

THYMOL.—Current low prices are not attracting much business: synthetic, fine white, one cwt., 4s. 10d.; 56 lb., 5s.; 28 lb., 5s. 1d.; 14 lb., 5s. 4d. per lb.; ex ajowan seed, one cwt., 7s. 3d.; 56 lb., 7s. 4 $\frac{1}{2}$ d.; 28 lb., 7s. 6d.; 14 lb., 7s. 9d. per lb.

VANILLIN.—Average business, market fairly steady: ex guaiacol or clove oil, ten cwt., 14s. 6d.; five cwt., 14s. 9d.; three cwt., 15s.; one cwt., 15s. 3d.; 56 lb., 15s. 6d.; 28 lb., 15s. 9d.; 14 lb., 16s.; less, 16s. 3d. per lb.

Crude Drugs, etc.

AGAR.—Business is quiet, market steady: spot, Kobe, No. 1, 1s. 11d.; No. 2, 1s. 9d.; Yokohama, No. 1, 1s. 9d. per lb.; shipment, Kobe, No. 1, 1s. 7 $\frac{1}{2}$ d.; No. 2, 1s. 6 $\frac{1}{2}$ d.; Yokohama, No. 1, 1s. 5 $\frac{1}{2}$ d. per lb., c.i.f.

ANTIMONY.—Quoted values are steady; Chinese, crude, spot, £20; shipment, £18 5s., c.i.f. Chinese oxide, spot, £28; shipment, £25, c.i.f.

BUCHU.—Shipment prices for new crop good bold green round leaves are being maintained in the region of 9 $\frac{1}{2}$ d. per lb., c.i.f.

CAMPHOR.—Market is dull: spot, slabs, 2s. 1d.; flowers, 2s. 1 $\frac{1}{2}$ d.; tablets, 2s. 5d. per lb.; shipment, slabs, 1s. 9 $\frac{1}{2}$ d.; flowers, 1s. 9 $\frac{1}{2}$ d.; tablets, 2s. 1d. per lb., c.i.f. English refined is quoted unchanged; flowers, one cwt., 3s. 1d.; 28 lb., 3s. 2d.; small lots, 3s. 3d. per lb. Transparent tablets, 4 oz., 8 oz. and 16 oz., 3s. 4d.; 1 oz. and 2 oz., 3s. 5d.; $\frac{1}{2}$ oz., $\frac{1}{4}$ oz. and $\frac{1}{8}$ oz., 3s. 6d. per lb.; special prices for contracts for quantities.

CASCARA SAGRADA.—Dealers are offering small spot parcels of 1933 peel at about 36s. 6d. per cwt.

CHAMOMILES.—It is reported that some lots have been released out of bond on payment of the 10 per cent. duty.

CLOVES.—Rather quiet market; values unchanged. Zanzibar, spot, 5 $\frac{1}{2}$ d.; shipment, March-April, 4 $\frac{1}{2}$ d. per lb., c.i.f.

The landings of Zanzibar in London during the week ended March 24 were 50 and the deliveries 73, leaving a stock of 4,122. From January 1 to date, landings of Zanzibar have been 2,330 and the deliveries 730. Landings of Madagascar for the week ended March 24 were nil, and the deliveries 60, leaving a stock of 821. From January 1 to date landings of Madagascar have been 100 and the deliveries 261 packages.

COCONUT (DESICCATED).—Business is of small account. Spot, fine, 14s. 6d.; medium, 14s. 3d.; shipment, halves, March-April, 13s. 10 $\frac{1}{2}$ d. per cwt., c.i.f.

COD LIVER OIL.—Bergen fishing results have again been very good, with the total quantity of oil produced to March 26 at 48,064 hectol, compared with 48,333 at the same date last year and 50,508 in 1932. The considerable shortage in the first weeks of the fishing season have now been made up. Finest Lofoten steam-refined non-freezing medicinal oil, 94s. per barrel, c.i.f. Spot, in small lots, about 136s. per barrel, ex store, duty paid. Newfoundland, finest non-freezing medicinal oil, 132s. 6d. per barrel, ex store. British oil, non-freezing finest medicinal, steady at 120s. per barrel, c.i.f., London, duty free.

ERGOT.—A fair inquiry, market steady. Spanish, 1s. 8d.; Portuguese, 1s. 7d. per lb.; Russian is very scarce and nothing offering from origin.

GELATIN.—Fairly steady with a limited business passing: German, gold leaf, 2s. 4d.; silver leaf, 2s. 2d.; bronze leaf, 1s. 10d.; plain leaf, 1s. 8 $\frac{1}{2}$ d. per lb. French, gold leaf, 1s. 10d.; silver leaf, 1s. 8d.; bronze leaf, 1s. 6 $\frac{1}{2}$ d. per lb., in cwt. cases.

GUM ACACIA.—Market is steady; fair inquiry: spot, Kordofan cleaned sorts, 35s. 3d.; bleached, 67s. 6d. to 72s. 6d. per cwt.; shipment, Kordofan cleaned sorts, 32s. 6d. per cwt., c.i.f. The net increase in the freight has been settled on a basis of 6d. per cwt.

HONEY.—Occasional spot business, values about steady: Jamaican, pale set, about 45s.; amber, about 40s.; dark manufacturing, 34s. per cwt.

HYDRASTIS.—Slightly cheaper on a slow market: spot, 4s. 10d.; shipment, 4s. 2d. per lb.

IPCACUANHA.—There has been a fair inquiry and spot supplies of Matto Grosso are held for 4s. 4 $\frac{1}{2}$ d. to 4s. 6d. per lb., as to quantity.

MENTHOL.—Values are slightly better this week with a limited inquiry. K/S Brands, spot, 9s. 3d. to 9s. 4 $\frac{1}{2}$ d., and slightly less for bulk lots; shipment, January-March, 8s. 7 $\frac{1}{2}$ d.; April-June, 8s. 7 $\frac{1}{2}$ d.; July-August, 8s. 9d. per lb., c.i.f., from re-sellers. Japanese shippers quoting 8s. 10 $\frac{1}{2}$ d., c.i.f.

MERCURY.—Average business, market steady. Spanish-Italian, spot, £10 11s. 6d. per bottle, ex store; shipment, 53 dollars per bottle, f.o.b. Continent.

OPIMUM.—Market continues firm at former rates. Shipment, 1s. 5 $\frac{1}{2}$ d., c.i.f.; spot, 1s. 7 $\frac{1}{2}$ d. per unit, landed and duty paid.

PEPPER.—Business has been slow and forward prices are slightly easier. Lampong, spot, 5d.; March-May, 4 $\frac{1}{2}$ d., c.i.f. Tellicherry, spot, 5 $\frac{1}{2}$ d.; April-May, 4s., c.i.f. Aleppy, spot, 4 $\frac{1}{2}$ d.; April-May, 4s. 6d., c.i.f. White Muntok, spot, 8 $\frac{1}{2}$ d.; March-May, 7d.; May-July, 7 $\frac{1}{2}$ d. per lb., c.i.f.

RUBBER.—A very fair volume of business with the market steady as quoted. Standard ribbed smoked sheet, spot, 5 $\frac{1}{2}$ d.; March, 5 $\frac{1}{2}$ d.; April, 5 $\frac{1}{2}$ d.; May, 5 $\frac{1}{2}$ d.; June, 5 $\frac{1}{2}$ d.; July-September, 5 $\frac{1}{2}$ d. per lb.

SAFFRON.—Average small business is being done on spot: spot, prime B.P., 56s.; extra B.P., 54s. 6d.; super B.P., 51s. 6d. per lb., and slightly less for bulk quantities.

SENEGAL.—Fractionally cheaper on a dull market: spot, 1s. 4d.; shipment, 1s. 3d. per lb.

TRAGACANTH.—A fair inquiry for best whites, while manufacturing grades are neglected. Spot values are fully maintained.

WAX (VARIOUS).—Inquiry has been much less this week, but with the acute shortage of supplies on spot and at origin of CARNAUBA, current prices are firmly maintained. In BEES' there has been a limited demand with former prices fully steady.

Essential Oils

BUSINESS in most products in this market has been on modest lines. French Guinea oil is much dearer from origin for best quality oil. Petitgrain is again cheaper and Spearmint is quoted easier on spot.

ANISE (STAR).—Steady, business unimportant: spot, "Red Ship," in leads, 1s. 10½d.; in tins, 1s. 8½d.; in drums, 1s. 7½d.; shipment, in leads, 1s. 8½d.; in tins, 1s. 7d.; in drums, 1s. 6½d. per lb., c.i.f.

BOIS DE ROSE.—Dealers are quoting small parcels of Brazilian on spot at about 6s. to 6s. 3d. per lb.

CASSIA.—There is a steady inquiry on spot with some shortage of good quality oil, which is held for 3s. 10½d. to 3s. 11d. per lb.; shipment is unchanged at 3s. 2½d. per lb.

CITRONELLA.—The market has shown very little life this week. Java, shipment, 1s. 4½d., c.i.f., for good quantities. Ceylon, shipment, unchanged at 1s. 2½d. per lb., c.i.f.

EUCALYPTUS.—Market has been quieter, values continue steady. Australian, 70 to 75 per cent., 1s. to 1s. 1d.; 80 to 85 per cent., 1s. 1d. to 1s. 1½d. per lb., landed. Spanish, 70 to 75 per cent., 1s. 2d. per lb.

GERANIUM.—The shipment market for Bourbon is advised as dearer at 21s. 6d. per lb., c.i.f., but business is lacking for this destination. Algerian, 24s. per lb., c.i.f.

LEMON.—There has been a few inquiries on the market with Sicilian hand-pressed at 3s. 1d. to 3s. 2d. per lb., c.i.f., and some brands at a substantial premium. Californian oil on spot is moving slowly; in large drums, 48 cents; in small drums, 49 cents per lb., spot.

ORANGE.—The chief feature of this market has been a sharp advance in shipment offers of reliable quality French Colonial oil, which are now in the region of 2s. 4d. to 2s. 5d. per lb., c.i.f.; small spot lots are now quoted at 3s. to 3s. 3d. per lb.; there may be sellers at less. Californian, spot, one case, 61 cents; two or more cases, 56 cents per lb., with a fair business.

PEPPERMINT.—Rather better conditions are reported, although actual business does not amount to much. Japanese, spot, 3s. 2d.; afloat, 3s. 1d.; shipment, January-March, 3s. 1½d.; April-June, 3s. 3d.; July-August, 3s. 4d. per lb., c.i.f., from resellers. Japanese shippers quoting 3s. 6d. per lb., c.i.f. American natural oil is quoted at about 2 dollars 45 cents per lb., c.i.f., in drums.

PETITGRAIN.—The spot market is again a point easier with sellers at 3s. 10½d.; shipment is also down at 3s. 3d. per lb., c.i.f.

SPEARMINT.—Lack of business tends to weaken the market with offers now at 6s. to 6s. 1½d., spot; shipment, 5s. 4½d. per lb., c.i.f.

SPIKE.—Occasional spot demand for small lots of Spanish, with holders quoting in the region of 4s. 3d. to 4s. 4½d. per lb. Much dearer forward for first quality oil.

The following are current quotations for synthetics, etc.: Acetophenone, 6s. to 6s. 4d. per lb.; amyl acetate, pure, 122s. 6d. per cwt., technical 107s. 6d.; amyl salicylate, 2s. 3d. per lb. for cwt. lots up to 2s. 9d.; aubepine, ex para cresol, 8s. 3d. to 8s. 9d. per lb.; benzaldehyde, f.f.c., 2s. 1d. to 2s. 6d. per lb.; benzyl acetate, f.f.c., 1s. 6d. to 1s. 10d. per lb.; benzyl alcohol, cwt. lots, 1s. 8d. up to 2s. 3d. per lb. for small lots; bromstyrol, 100 per cent., 10s. 6d. to 11s. per lb.; butyric acid, 3s. 3d. to 3s. 6d. per lb.; citral, chemically pure, 8s. to 8s. 6d. per lb.; coumarin, 8s. to 9s. per lb.; ethyl phthalate is steady at 2s. to 2s. 3d. per lb.; eugenol, 7s. 6d. to 8s. per lb.; geraniol, ex palmarosa, 16s. to 18s. per lb.; heliotropin, 100 per cent. crystals, 4s. 11d., in cwt. lots, up to 5s. 9d. per lb., as to quantity; iso eugenol, 9s. 6d. to 10s. per lb.; methyl anthranilate, 7s. 3d. to 7s. 9d. per lb.; mirbane is quoted at 7d. to 8d. per lb.; musk; ketone, 33s.; ambrette, 30s.; xylol, 8s. per lb., with bonus for quantities, some outside offers may be slightly cheaper; phenyl ethyl alcohol, 8s. to 8s. 6d. per lb.; safrol is fairly steady at 1s. 2d. to 1s. 6d. per lb.; terpineol, 1s. 4d. for ton lots up to 1s. 9d. per lb. for small parcels.

Commercial Notes

ITALIAN MERCURY PRODUCTION.—Output for 1933 amounted to 612 tons, compared with 858 tons in 1932.

U.S.A. CITRUS OIL EXPORTS, 1933.—Exports during 1933 amounted to 76,000 lb., valued at \$64,000, compared with 73,000 lb., valued at \$65,000, during 1932.

BRITISH GUIANA CHEMICAL IMPORTS.—Imports of chemicals of all descriptions during 1933 amounted to a total value of \$89,000, of which \$68,000 were shipped from the United Kingdom, \$4,000 from the U.S.A. and \$2,000 from Canada.

GERMAN GLUE EXPORTS.—For the period January-November, 1933, exports of glue (other than albumen glue) amounted to 4,619 metric tons, valued at Rm. 3,103,000, compared with 4,702 metric tons, valued at Rm. 3,737,000 during the same period of 1932.

GERMAN SYNTHETIC CAMPHOR EXPORTS.—For the period January-November, 1933, exports amounted to 1,231 metric tons, compared with 1,268 metric tons for the same period of 1932. For previous whole years exports were as follows:—1931, 1,877 tons; 1930, 2,181 tons and 3,049 tons in 1929.

INDIAN CHEMICAL IMPORTS, APRIL-DECEMBER, 1933.—Imports of industrial chemicals amounted to Rs. 195 lakhs, compared with Rs. 208½ lakhs during the same period of 1932. The total value of imports of drugs and medicines amounted to Rs. 138½ lakhs, which was equal to the value of the imports of the same period of 1932.

U.S.A. GUM IMPORTS, 1931-1933.—Imports of the gums mentioned in weight and value for the years 1931, 1932 and 1933 respectively were as follows:—ACACIA: 7,264,107 lb. (\$535,586); 5,508,627 lb. (\$227,374); and 5,597,664 lb. (\$263,999). TRAGACANTH: 1,673,289 lb. (\$673,837); 1,425,143 lb. (\$328,357); and 2,364,188 lb. (\$422,428).

CZECHOSLOVAK TRADE IN CHEMICALS WITH THE U.K.—Shipments of chemicals and by-products from Czechoslovakia to the United Kingdom for 1933 were valued at 10,836,000 crowns, compared with 8,834,000 crowns in 1932. Shipments from the United Kingdom of the same classes of goods to Czechoslovakia were valued at 1,933,000 crowns in 1933 and 1,596,000 crowns in 1932.

SUDAN GUM ACACIA EXPORTS.—Boxall & Co. report that exports for January, 1934, amounted to 2,087 tons, compared with 840 tons during January, 1933. The chief destinations were as follows, in tons:—United Kingdom, 476; U.S.A., 186; France, 249; Germany, 152; Italy, 129; Belgium, 426; Japan, 129; Holland, 60; India, 53; Argentina, 35. The total was composed of 1,892 tons of Hashab, 4 tons of Bleached and 191 tons of Talha.

U.S.A. QUININE SALTS IMPORTS, 1933.—Imports of these salts during 1932 and 1933 were as follows:—

| | 1932 | | 1933 | |
|--|----------|---------|-----------|---------|
| | Quantity | Value | Quantity | Value |
| | oz. | \$ | oz. | \$ |
| Quinine sulphate | 461,548 | 153,600 | 1,638,939 | 557,873 |
| Other quinine, and other alkaloids and salts from cinchona bark | 321,124 | 94,000 | 1,255,588 | 357,035 |
| Other alkaloids, salts and derivatives | — | 103,700 | — | 146,408 |

U.S.A. LAVENDER OIL IMPORTS.—Imports for 1933 amounted to 270,000 lb., valued at \$384,700, with an average declared value of \$1.423 per lb. Imports for previous years were as follows:—

| Year | lb. | Value \$ | Average declared Value per lb. \$ |
|----------|---------|----------|-----------------------------------|
| 1923 ... | 243,000 | 449,000 | 1·847 |
| 1924 ... | 226,000 | 764,000 | 3·380 |
| 1925 ... | 183,000 | 598,000 | 3·267 |
| 1926 ... | 198,000 | 509,000 | 2·570 |
| 1927 ... | 323,000 | 927,000 | 2·869 |
| 1928 ... | 296,000 | 708,000 | 2·391 |
| 1929 ... | 381,000 | 906,000 | 2·377 |
| 1930 ... | 376,000 | 722,000 | 1·920 |
| 1931 ... | 280,000 | 500,000 | 1·785 |
| 1932 ... | 212,000 | 228,500 | 1·077 |

THE NETHERLANDS CHEMICAL TRADE, 1932-1933.—Imports of chemicals, medicines, dyes, etc., for 1933 amounted to 304,145 metric tons, valued at 48,299 florins, compared with 311,086 metric tons, with a total value of 47,214 florins, in 1932. Exports of chemicals, medicines, dyes, etc., for 1933 amounted to 163,332 metric tons, valued at 30,486 florins, compared with 132,300 metric tons, with a total value of 29,230 florins, in 1932. Shipments of chemicals, medicines, dyes, etc., from the United Kingdom to the Netherlands amounted to 12,100 metric tons, compared with 6,900 metric tons in 1932.

Correspondence

Letters should be written on one side of the paper only. Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor

Existing Titles under Pharmacy and Poisons Act

SIR,—I cannot express myself too strongly on the injustice in regard to payment demanded for the title of chemist and druggist and pharmaceutical chemist. It means to say that if a chemist and druggist or a pharmaceutical chemist cannot afford to pay his subscription, he loses his birthright. This cannot stand, and I invite all chemists who wish to protest to write me at once.—Yours faithfully,

J. W. Cox.

732 Stratford Road,
Sparkhill, Birmingham.

Statutory Committee and Poisons Board

SIR,—An article on the Pharmacy and Poisons Act "by a Chemist and Druggist" appeared on p. 269 of THE CHEMIST AND DRUGGIST of March 10 to the effect that as a result of the endeavour of "a few Scots," provision had been made in the Act ensuring that the Statutory Committee shall include a pharmacist resident in Scotland. The writer of the article added: "Had these patriots been a little more far-seeing, they would also have had a Scottish pharmacist on the more important Poisons Committee, on which all the five pharmacists appear to be Southerners." I should like to point out that the Scottish Pharmaceutical Federation (which represents the majority of chemists and druggists carrying on business in Scotland) made just as strenuous efforts to ensure that the Act provide for a pharmacist resident in Scotland being appointed to the Poisons Board as they did in the case of the Statutory Committee; and that even although they were only successful in the latter case, they still continued to press the Home Office and the Council of the Pharmaceutical Society to appoint a pharmacist resident in Scotland as one of their respective representatives on the Poisons Board. Although these latter efforts were also unsuccessful, the Federation have since requested the Home Office and also the Council of the Pharmaceutical Society to appoint such a pharmacist in the event of a vacancy arising in the Poisons Board at any time which falls to be filled by either the Home Office or the Council of the Pharmaceutical Society. The Federation regret very much that the Poisons Board does not contain even one practising pharmacist.—Yours faithfully,

ALEXANDER A. DICK,
President of the
Scottish Pharmaceutical Federation.

Glasgow, C.2.

Counter Prescribing

SIR,—In your issue of March 17 your correspondent A. Stephens, M.P.S., says: "Counter prescribing is the chemists' right and should never . . . be surrendered." Surely even he could not deny that to prescribe accurately one must first of all make a correct diagnosis. How could anyone—even the president of the College of Physicians—make a diagnosis with the patient in an open shop and a counter separating the patient from the would-be prescriber? Some years ago I was called to see a poor fellow who was lying dead after having vomited about a pint of blood. The history was that he had called on a chemist on his way home from business and had been given a draught. On his arrival home he told his wife that the draught had relieved the pain, otherwise he would not have been able to eat the dinner prepared for him. He had soup and fish, and was about to commence on chicken when he vomited and died. On *post-mortem* I found an ulcer of the stomach the size of half-a-crown. The coroner said: "Well, I suppose that ulcer was the cause of death." "No," I said. . . . Had the poor man gone home and sent for a doctor, he would have

been examined properly and would have been put on a suitable diet; then a further examination by barium meal and x-rays.—Yours, etc.,

J. C. BAWDEN.

Newcastle-on-Tyne.

Meeting Store Competition

SIR,—Your article "Meeting Store Competition" in your issue of March 17 is very interesting, and can be made very useful to those having the energy to carry it out. One would think a $\frac{1}{2}$ -oz. bottle of iodine with brush at 6d. was very good value; and having had a complaint from a customer a few days ago that a well-known store was selling a bottle twice the size offered by me for the same money, I sent out and purchased one. It certainly looked twice the size, but when measured did not stand up to appearances; it contained 5 dr. 20 min. The container was a plain, white glass, long-shaped bottle, was capped with a white composition, apparently dipped, had a plain label "Tincture of Iodine, Poisonous," but no name or address. It seems to me chemists will not try to compete against a line like this. It would appear we qualified solely to dispense other people's proprietary articles!—Yours faithfully,

OFF SIDE (26/3).

SIR,—The illustration of a display counter for six-penny lines accompanying the article "Meeting Store Competition" leads one to consider how far the private chemist can go to meet the demand for cheap packs and yet do so profitably. That the demand is there is not to be denied, but the chemist is heavily handicapped when he tries to meet the competition of the stores. The first difficulty he has to face is the problem of accessibility. Customers will go into a bazaar and stroll round with the consciousness that there is no need for them to purchase anything, although in actual fact they seldom depart without having made some small purchase. But the same people will not walk into the shop of a private trader with an equal sense of freedom, because they feel that on entering they must go to the counter to be served with something, so they do not enter unless they have some definite requirement. Then customers in a bazaar practically serve themselves—they pick up an article out of the tray and hand it to a girl assistant who merely puts it in paper and takes the money; but in a chemist's shop they not only require the goods but service and advice as well. The individual trader must employ assistants who have a technical knowledge of the articles they sell, and in consequence he has a higher wages bill than the stores. Further, there is the question of turnover; the aim of the private trader is to get as high an average amount spent per customer as possible, because the number of his customers coming in is to some extent limited. The stores, on the other hand, have an almost unlimited number of customers. There is very little loyalty among the purchasing public to-day; it is common to be asked for loose drugs and to find that the bottle presented has half a dozen labels on it from other chemists in the district, showing that the customer goes into the one nearest at the moment.

Faithfully yours,
SIXPENNORTH (27/3).

Slovenly Calligraphy

SIR,—The address given by Mr. Gilmour at the Edinburgh evening meeting on the difficulties of interpreting and pricing insurance prescriptions (*C. & D.*, March 3, p. 244) shows what innumerable difficulties are caused by slovenly prescribing, and the instances quoted make a formidable list when read as a whole; yet pharmacists are handling some of these daily. Any doctor who writes so badly that items may be read in more than one way, as illustrated by the two tables, should be answerable

to his local Insurance Committee. The instances given of pot. brom. for pot. bicarb. and sod. brom. for sod. bicarb. are the most common, and the difficulty is further increased by the "pot." or "sod." being so alike that they might be either. When a prescription is for a Formulary mixture the chemist is in a worse predicament still, as there are several mixtures in the new National Insurance Formulary with titles so close to one another that the usual scrawl may mean any one of two or three. Directions for taking are now omitted more frequently than before; the N.F. provides them, but when they are added they generally consist of a wiggly line and a few dots. Extravagant prescriptions are not so frequent as they used to be. Placebos, such as those quoted, would seem to be worth the small amount they cost, as their effect might save further expense. With regard to wools and lints ordered as "a small packet," in England the Tariff states the quantities of dressings to be supplied when none is specified.

Yours truly,

OCTARIUS (13/3).

Cultural or Business Training?

SIR,—Although I sympathise with Mr. Simmons in his plea that cultural subjects should be more to the fore at the expense of a knowledge of book-keeping and business methods (*C. & D.*, March 10, p. 277), I must express the opinion I have strongly held for years that we are suffering in pharmacy to-day, in many ways, because of the poor knowledge the average pharmacist has of business methods. If, as is suggested, the acquisition of this knowledge is to be deferred till after qualification, I am afraid it will never be acquired, as the young pharmacist will then consider that his education is finished, with the result that he will enter into business for himself with a cultural knowledge of his craft but without that essential business knowledge by which he can make a living along sound economic lines. It is not only a question of a knowledge of book-keeping, important though that undoubtedly is, but also of a better knowledge of buying and selling (with the principles underlying these subjects), of costing (without which there is usually a tendency to "cut" prices), of stock-keeping and all that it implies; some information upon methods of ordering goods should also be included. Why is it that the man who has been in the employ of a successful multiple-shop company usually makes a success of his own business? Because, during the period he was in its employ, he was thoroughly trained in modern methods of running a business.—Yours, etc.,

COUNTY CHEMIST (12/3).

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for, and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them

Chemie (21/28).—**LEMONADE POWDER.**—The following formula for lemonade powder should meet your requirements:—

| | | | |
|---------------------|-----|-----|-------|
| Tartaric acid | ... | ... | 1 oz. |
| Oil of lemon | ... | ... | 20 ℥. |
| Sugar | ... | ... | 1 lb. |
| Lemon yellow colour | ... | ... | 2 gr. |

This is put up in 1-oz. packets, the directions being: Empty the contents of the packet into a pint of cold water and stir, when a delicious lemonade will be produced.

H. R. C. (26/28).—**TRIETHANOLAMINE CREAMS.**—The following are the formulas for which you ask:—

Vanishing Cream

| | | | |
|---------------------|-----|-----|---------|
| Stearic acid | ... | ... | 50 lb. |
| Lanolin (anhydrous) | ... | ... | 9 lb. |
| Triethanolamine | ... | ... | 2.5 lb. |
| Carbitol | ... | ... | 18 lb. |
| Water | ... | ... | 120 lb. |

In one container melt the stearic acid carefully and add the lanolin. Heat the triethanolamine and water

separately to boiling and then add the melted fatty acid to it with constant stirring. When a smooth mixture is obtained, stir in the carbitol to which has been added the perfume. Continue with even stirring while cooling until a heavy, smooth cream is obtained, and then stir occasionally until cold. The cream will become thinner as it cools and the acid crystallises.

Cleansing Cream

| | | | |
|---------------------|-----|-----|---------|
| Stearic acid | ... | ... | 29 lb. |
| Lanolin (anhydrous) | ... | ... | 8 lb. |
| Mineral oil (white) | ... | ... | 50 lb. |
| Triethanolamine | ... | ... | 3.6 lb. |
| Carbitol | ... | ... | 10 lb. |
| Water | ... | ... | 100 lb. |

Melt the stearic acid in the mineral oil, add the lanolin and bring the temperature of this oil solution to 70° C. Then add to it the solution of triethanolamine and water which has been brought to the boiling point in a separate container. Stir vigorously to obtain a uniform emulsion and add the carbitol solution of the perfume. Continue with even stirring until a smooth cream is obtained and then occasionally until cold. Too rapid stirring causes an undesirable aeration of the cream.

Cold Cream

| | | | |
|---------------------|-----|-----|---------|
| Stearic acid | ... | ... | 30 lb. |
| Lanolin (anhydrous) | ... | ... | 20 lb. |
| Beeswax (white) | ... | ... | 16 lb. |
| Mineral oil (white) | ... | ... | 33 lb. |
| Triethanolamine | ... | ... | 3.8 lb. |
| Carbitol | ... | ... | 16 lb. |
| Water | ... | ... | 95 lb. |

Melt the stearic acid, lanolin and beeswax in the mineral oil and heat to about 70° C. Prepare in a separate kettle a boiling solution of the triethanolamine and water, and add to this the hot solution of waxes. Stir vigorously until a creamy emulsion is obtained and add the carbitol, to which the perfume has been added. Continue stirring until homogeneous and the product has reached the proper consistency. Pour into jars while still warm.

Another cold cream formula which has recently been published is as follows:—

| No. 1 | No. 2 |
|--|-------------------------------------|
| Anhydrous wool-fat ... 1½ oz. | Distilled water ... 150 oz. |
| Beeswax, sunbleached ... 7½ oz. | Triethanolamine ... 45 dr. |
| Parowax ... 15 oz. | Glycerin ... 30 oz. |
| Stearic acid, triple pressed ... 30 oz. | Sodium benzoate ... 120 gr. |
| Ceresin wax, white ... 7½ oz. | Make a solution and heat to 130° F. |
| Lt. gravity mineral oil ... 105 oz. | |
| Melt altogether with slow heat not to exceed 130° F. | |

Pour No. 1 into No. 2 and stir for 15 minutes; it is best to use a beater run with electric current. Add 1 fl. oz. of perfume oil and allow to stand at a temperature of 60° or 70° F. until cooled or allow to stand overnight. The next step is to whip for at least 20 minutes.

Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," March 15, 1884

Turtle Oil

In the tropics it [turtle oil] is largely used in wasting diseases where cod-liver oil is exhibited in this country. In some parts it is even preferred to cod-liver oil, and is said to be more easily digested. This sample was obtained from the Seychelles Islands, and is produced, I believe, by *Chelonia viridis*. It has a peculiar odour, and a taste something like rancid beef dripping. I believe the oil is chiefly obtained from the female turtles which come on shore to deposit their eggs. . . . A large turtle will yield about thirty pints of oil, which is used as an article of food and as an illuminating agent, as well as for medicinal purposes. [From a paper by Mr. J. O. Braithwaite.]

SULPHUR LOZENGES FOR SPRING SALE

PACKED OR IN BULK

SULPHUR & LIME JUICE TABLETS
SULPHUR & RASPBERRY CREAMS
COMPOUND SULPHUR LOZENGES
SULPHUR & YEAST TABLETS
SULPHUR LOZENGES
(Orange flavour)



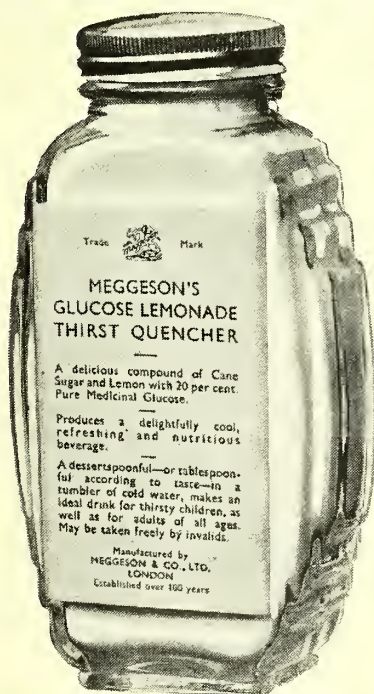
MEGGESONS WILL SUPPLY CARTONS FOR
THE ABOVE FREE WITH BULK ORDERS ON REQUEST



Send us your enquiries for

HYGIENIC FRUIT SALINE, MORNING POWDER,
CITRATE OF MAGNESIA, LIME JUICE & SULPHUR SALT

ATTRACTIVE SHOWCARDS AVAILABLE



MEGGESONS' GLUCOSE LEMONADE THIRST QUENCHER

The New Spring and Summer
Drink for Tennis Parties and Sports

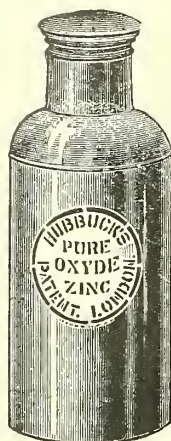
$\frac{1}{2}$ lb. Screw-capped Bottles
(Wrapped in Cellophane)

Wholesale 7/6 doz. net.

Retail price 1/-

MEGGESON & CO. LTD., LONDON, S.E.16

Telephone : BERmondsey 1741 & 1742



Hubbuck's Pure Oxide of Zinc

is made by sublimation, and is
warranted to contain upwards of

99.9 PER CENT.

of pure oxide; in fact, the
impurities are not traceable

Thos. Hubbuck & Son, Ltd.

ESTABLISHED 1765

24 Lime Street, London, E.C. 3

MANUFACTURERS OF WHITE LEAD, WHITE
ZINC, PAINT OILS, COLOURS, VARNISHES, &c.

Australian Office: 34 Queen Street, Melbourne.

*Sold by the following Wholesale Druggists
in Boxes of 7 lb. and 14 lb. stamped by
the Manufacturers: also in 1-lb. Boxes
and 1-lb. Glass Bottles:*

| | |
|--|--|
| Allen & Hanburys, Ltd. | Hodgkinson, Prestons & King |
| Ayrton, Saunders & Co., Ltd. | Horner, L. A., & Sons |
| Bell, Jno., & Croyden | Huskisson, H. O., & Co. |
| Bell, John, Hills & Lucas, Ltd. | Lothouse & Saltmer, Ltd. |
| Bleasdale, Ltd. | Mackay, Jno., & Co., Ltd. |
| Boots Pure Drug Co., Ltd. | May, Roberts & Co., Ltd. |
| British Drug Houses, Ltd. | Oldfield, Pattinson & Co. |
| Brook, Parker & Co., Ltd. | Pinkerton, Gibson & Co., Ltd. |
| Burpyne, Burdidge & Co., Ltd. | Potter & Clarke, Ltd. |
| Butler & Crispe | Raines & Co. |
| Coekburn & Co., Ltd. | Raines, Clark & Co., Ltd. |
| Dakin Brothers | Rankin & Borland |
| Duncan, Flockhart & Co. | Silversides, R. B. G. |
| Evans, Gadd & Co., Ltd. | Smith, T. & H., Ltd. |
| Evans Sons Lescher & Webb, Ltd. | Southall Bros & Barclay, Ltd. |
| Ferris & Co. | Sumner, R., & Co. |
| Gale & Co. | Taylor, Jas. (Tyngate), Ltd. |
| Glasgow New Apothecaries Co. | Thompson, John, Ltd. |
| Goodall, Backhouse & Co. | Wilkinson & Simpson, Ltd. |
| C. R. Harker, Staggs & Morgan, Ltd. | Willows, Francis, Butler & Thompson, Ltd. |
| Harkness, Beaumont & Co., Ltd. | Woolley, Jas., Son & Co., Ltd. |
| Hatrick, W. R., & Co. | Wright, Layman & Umney, Ltd. |
| Hirst, Brooke & Hirst | Wyleys (Lim.) |

| | |
|--|--|
| Barry, E. J., New York | Muth Brothers & Co., Balti- more |
| Finlay, Dicks & Co., New Orleans | Palmers, Ltd., Montreal |
| E. Fougere & Co., 90-92, Beekman Street, New York | S. B. Peacock & Co., Inc., New York |
| Chas. L. Hulsing & Co., Inc., 135, Varick St., New York | Roller & Shoemaker, Phila- delphia |
| Lohn & Fink, Inc., N. York | Schiffelstein & Co., Inc., New York |
| McKesson & Robbins, Inc., New York | Shoemaker & Busch, Phila- delphia |

ARNFIELD'S

Raspberry Vinegar

manufactured from Pure Fruit
Juice, is the best foundation
for cough mixtures. It is abso-
lutely pure and contains no
preservatives or artificial
flavouring agents.

Send for sample and quotation
stating quantity required.

J. C. Arnfield & Sons, Ltd.

Manufacturing Chemists
Wholesale and Export Druggists

Stockport

ESTABLISHED
1786



HEARTSHAPE TABLETS BISMUTH INDIGESTION IN BULK OR IN PACKETS

**B B
BEST**

B.B. Heartshape tablets are warranted to be the
very purest and most palatable obtainable. We
are doing a big trade with Chemists all over the
country, who are able to handle a line that is
always a ready seller, and which is assured of a
really good "repeat" business. By packing these
tablets yourself you may obtain up to 200% profit.

**B B
BEST**

BULK PRICES—

1 lb., 1/9 14 lbs., 1/7 28 lbs., 1/6
(50 2-oz. cartons supplied with every 14 lbs.)

Packed in 2-oz. cartons. Own name overprinted on gross 10's
1 doz., 3/6 1 gross, 36/-

Each packet neatly wrapped in Cellophane, 39/- per gross

PARTICULARS OF BONUS OFFER ON REQUEST

Attractive showcards are supplied with all orders

Specialists in Compressed Medicinal Tablets
(30 years practical experience)

THE WORLD RENOWNED "PREMIER" TABLET MACHINE

We are the sole manufacturers of this improved machine. Compresses
tablets that are equal in every respect to those produced on the more
expensive power machines. Full instruction for preparing powders for
compression given with each machine.

Pamphlets on request

PRICE, complete with punches and die, £15 10s.

**BUCKLEY - BOWKER TABLET
CO., LTD.,**
29 Parkfield St., LONDON, N.1
Phone: Clerkenwell 1401



ALKALOIDS

FINE CHEMICALS AND OPIUM DERIVATIVES

*Goods
covered by
Dangerous Drugs
Acts offered
subject to all
regulations*

Aloin • Atropine • Bismuth Salts • Caffeine • Cantharidin
Capsicin • Chloroform • Chrysarobin • Codeine • Diamorphine
Emp. Canth. Liq. • Ephedrine • Ergotin • Eserine • Ethyl-
morphine • Gingerine • Hyoscyamine • Jalap Resin • Leptandrin
Morphine • Opium • Podophyllin Resin • Salicin • Santonin
Scammony Resin • Strychnine • Veratrine and other
Pharmaceutical Chemicals and Preparations.

T. & H. SMITH LTD.

25 CHRISTOPHER STREET, LONDON, E.C.2

*Blandfield Works,
Edinburgh,
32-34 Virginia St.,
Glasgow*



"CREMAG"
**CREAM OF
MAGNESIA**



(MIST. MAGNES. HYDROX. B.P. U.S.P.)

An Antacid Emulsion in almost perfect suspension produced by the "Pattinson" method and therefore free from Alkali and Salts. Packed for the Wholesale Trade. Write for 12-oz. free sample bottle to the Sole Manufacturers:

THE WASHINGTON CHEMICAL CO.

BRANCH OF TURNER & NEWALL, LTD.

WASHINGTON STN., CO. DURHAM

STERLING - BRAND - CHEMICALS

**SCALE PREPARATIONS
HYPOPHOSPHITES
BISMUTH SALTS
MERCURIALS
STEARATES
CITRATES
ACIDS
ETC.**

THOS. TYRER

& CO., LTD.

**STRATFORD
LONDON, E.15**

PLAIMAR

SANDALWOOD OIL

~ B.P. and French Codex ~

DISTILLED BY PLAIMAR LTD., PERTH, W.A.

European Agents **MAXWELL, PLAISTOWE & Co. Limited**

22a College Hill, Cannon Street, London, E.C.4

Paris Address: Etbs, Plaistowe, 11 bis, Rue Volney

Telephone: Central 5859
Telegrams and Cables: Azucena, London

Codes: A B C,
5th & 6th editions, and Bentley's

GUARANTEED
ONLY IF THIS
SEAL IS INTACT
BEFORE OPENING



THE REGISTERED TRADE MARK OF
PLAIMAR LTD IS A GUARANTEE
OF THE PURITY OF THE CONTENTS
OF THIS CONTAINER

LOOK FOR THIS SEAL—IT IS YOUR

GUARANTEE OF QUALITY

QUININE

QUINIDINE
CINCHONINE
CINCHONIDINE

and

SALTS

Sugar-coated Quinine Tablets and Pills.

Gelatine-coated Oval Pills.

BANDOENG
JAVA

BANDOENG QUININE FACTORIES

AMSTERDAM
De Wittenkade 48-50.

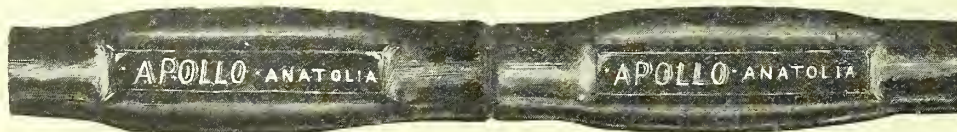
Telegrams: "Kininefabriek Bandoeng."

Samples, prices and particulars on application.

Telegrams: "Semadmy Amsterdam."

• APOLLO •

PURE LIQUORICE JUICE



MACANDREWS & FORBES, LTD., BUSH
Telephone: TEMPLE BAR 5392/3 ESTABLISHED 1857

HOUSE, LONDON, W.C.2
Telegrams: MACFORBES, BUSH, LONDON

TABLETS and PILLS

The Cooper Laboratory manufacture and supply a complete range of Tablets and Pills to Standard or Special Formulæ. The *quality* and *value* are unsurpassed and the service given is personal, thus ensuring complete satisfaction to each individual customer.

NETTO

THE EFFICIENT DRY
CLEANER

Retails at 9d. and 1s. 3d.
Price 6s. and 10s. per dozen.

DRUGS, CHEMICALS and PHARMACEUTICAL PREPARATIONS

In order to give further service to customers we have recently opened a new department for these lines. The quality of all preparations is up to the usual C.L. standard.

NATIONAL FORMULARY

Our N.F. card, which gives inclusive prices of convenient quantities of all the TABLETS, PILLS, OINTMENTS, LINIMENTS, and CAPSULES appearing in the new National Formulary, has been reprinted and A COPY WILL BE SENT ON REQUEST.

THE COOPER LABORATORY, WATFORD

Telephone : 3612

Telegrams : Science

A. & M. ZIMMERMANN
Petri Bros. Ltd. Proprietors

CHEMICALS
Pharmaceutical
Technical
Chlorophyll
all
Grades

ESSENTIAL OILS

COD LIVER OIL
Medicinal
and Cattle
Marseilles Soap

**3 LLOYDS AVENUE
LONDON. E.C.3**

FINEST QUALITY **CRUDE IODINE** **GUARANTEED NOT LESS THAN 99%**

EVERY CHEMICAL & INDUSTRIAL USER SHOULD APPLY FOR CURRENT PRICES & CONDITIONS To

ANTONY GIBBS & SONS
22 BISHOPSGATE, LONDON, E.C.2
representing
ASOCIACION de PRODUCTORES de YODO de CHILE

FOR NEARLY TWO CENTURIES

WE HAVE SATISFIED AND SERVED
THE BRITISH PHARMACIST IN ALL HIS REQUIREMENTS

WILLOWS, FRANCIS, BUTLER and THOMPSON, Limited
73/75/89a SHACKLEWELL LANE, LONDON, E.8

Phone : CLISSOLD 6361.

ESTABLISHED 1751.

Wire : FORTY KINLAND LONDON.

W.B. DICK & CO. LTD.



BY APPOINTMENT TO H.M. THE KING

PARAFFINUM LIQUIDUM B.P.
ALL SPECIFIC GRAVITIES GUARANTEED TO REMAIN BRIGHT AT 0°C

B.P. WHITE & YELLOW PETROLEUM JELLIES

WHITE AND HALF WHITE OILS

SEND FOR SAMPLES AND QUOTATIONS (WHOLESALE ONLY)

26 GROSVENOR GARDENS, LONDON, S.W.1
Telephone - Sloane 3461 (7 lines)
Telegrams - "Dicotto, Phone, London."
GLASGOW, LIVERPOOL, NEWCASTLE,
CARDIFF AND NEW YORK.

WE HAVE EXPLAINED TO THE PUBLIC

that, though 3/- seems a lot to pay for a box of laxative lozenges, Tamar Indien Grillon is worth it. We have told them why! These lozenges are unfailingly effective and cannot harm the most delicate constitution. A laxative which is safe, gentle and sure is what sufferers from constipation need. It is what they get in Tamar Indien Grillon, the fruit laxative which is constantly advertised and winning constantly increasing sales.

TAMAR INDIEN GRILLON

All enquiries to: GUYOT-GUENIN & SON (DEPT. CD), 67 SOUTHWARK BRIDGE ROAD, LONDON, S.E.1

BEE-HIVE

TRADE



MARK

REGISTERED FOR OUR
WELL-KNOWN BRANDS
OF CERESINE WAXES

CERESINE WAX

WHITE BLEACHED CARNAUBA WAX VARIOUS GRADES
AND RESIDUE
BEESWAX WHITE, YELLOW AND COMPOSITION PARAFFIN WAX ALL MELTING
POINTS
OZOKERITE WAX ALL GRADES

POTH, HILLE & CO., LTD.

6 Lloyd's Avenue, London, E.C. 3

Works at
Stratford, E.

The New Antiphlogistic Treatment

makes application
& removal easy

Nuphlogene
BRAND
The New Antiphlogistic Dressing

eliminates the distasteful
unsatisfactory spreading of lint etc.

In three sizes, 2" x 2",
3" x 4" and 6" x 8".


Write for sample & full
particulars post free from

CARNEGIE BROS LTD
Manufacturing Chemists
LONDON. N.1


ERGOAPIOL
(Smith)

Protective Mark
Patented in U.S. and
Foreign Countries

Ergoapiol (Smith) is identified by the letters "M. H. S." raised in the gelatin on the inside of each capsule—thus—




Capsule cut in half thru the seam, showing initials.



Capsule intact, showing no mark objectionable to the physician.

[Ergoapiol (Smith) is to be had only in packages of twenty capsules each—never supplied in bulk or other form.]

MARTIN H. SMITH CO., New York, N. Y., U. S. A.



Wholesale Prices

1/3 Size
11/6 per dozen net

3/- Size
27/6 per dozen net

Carriage Paid Gross Quantities or equivalent.

Manufactured only by

J. F. WHITE & CO., Chemists
BENSON STREET, LEEDS.

Paraffinum Liquidum

B.P.

**ALL GRADES
SAMPLES & PRICES**

On application to —

STERN'S LTD

16 Finsbury Square London E.C.2

Telephone : National 7644 (7 lines).
Telegrams : "Centumvir, Phone, London."

WHOLESALE ONLY

YOUR OPPORTUNITY

Extensive advertising is now being placed in
hundreds of papers all over the Kingdom

SECURE YOUR SHARE

of the demand for

Dr. J. Collis Browne's

CHILDRODYNE

by seeing that you hold stocks.

80 YEARS'
WORLD-WIDE
REPUTATION

Please order from your Wholesaler with
other goods

Sole Proprietors:

J. T. DAVENPORT LTD.
UNION STREET, LONDON, S.E.1

SOLD ONLY
THROUGH
CHEMISTS
SIZES 1/3, 3/-

HERBARAS CURES CONSTIPATION

There is a growing demand for natural treatment for Constipation of which the best example is HERBARAS Seeds of the Plantago type. Herbaras, which is being increasingly recommended by the medical and nursing profession, carries with it a very strong "repeat" business. The goodwill of every local order is handed to the local chemist.

P.A.T.A. Retail. 1/9 4 oz. 3/- 8 oz. 5/- 1 lb. 9/6 2 lbs.

SEND FOR A SPECIAL £1 PARCEL WITH WINDOW DISPLAY TERMS

JOHN W. LONGMAN, LTD., Overseas Produce Merchants, 489a Oxford St., LONDON, W.1

Antiphlogistine

Brand Dressing

HUMAN & VETERINARY
MADE IN ENGLAND

Write for Special Quantity Terms

The Denver Chemical Mfg. Co., London, E.3



**Buyers of
BOX'S PILLS**
often
bring in
their
friends

Most sufferers who find amazing relief through Box's Pills gladly "tell the world" and Chemists displaying the pills attract steadily increasing business.

Supplies obtainable from the usual wholesalers or the sole manufacturer:—

STRIKING
DISPLAY
MATERIAL
FREE ON
DEMAND

W. H. BOX
161 KING STREET,
PLYMOUTH

MAKE BOX'S PILLS THE "FIND" OF YOUR DISTRICT!

Edwenil

THE POLYVALENT
ANTIBACTERIAL AGENT

is now available in a
new size, i.e.:

50 c.c. Bottle
32/- Retail

EDWENIL is safe and comfortable in use. It is effective in the treatment of all bacterial infections of an endotoxic nature.

E. H. SPICER & CO. LTD.
WATFORD, HERTS
and at 72 WIGMORE STREET, LONDON, W.1

"CLARKES"

Brand

World-famed Blood-purifying Medicine

"BLOOD MIXTURE"

Registered Trade Mark

Brand

UNSTAMPED, FOR SALE BY CHEMISTS ONLY

P.A.T.A. PRICES

"CLARKES" Brand BLOOD MIXTURE
(Liquid and Tablets)

Retail 3/- 3 doz. lots £4 - 4 - 0 less $3\frac{3}{4}\%$ one month
12 " " £16-16-0 " $8\frac{3}{4}\%$ " "
CARRIAGE PAID PACKING FREE

ASSORTED ORDERS

| "CLARKES" Brand | Retail | Per doz. |
|---|--------|--------------|
| "BLOOD MIXTURE" (Liquid and Tablets) | 3/- | 28/- |
| "BLOOD MIXTURE" (Liquid only) | 12/- | 112/- |
| SKIN LOTION ... | 1/3 | 11/8 |
| SALVE ... | 1/3 | 11/8 |
| " ... | 3/- | 28/- |
| " ... | 5/- | 46/8 |
| APERIENT PILLS ... | 1/3 | 11/8 |
| " ... | 3/- | 28/- |
| MEDICATED SOAP | | Doz. tablets |
| Box 3 tablets ... | 2/6 | 7/10 |
| Single tablets ... | 1/- | |

Orders may be assorted as desired at above rates provided they reach minimum values, as follows:—

£4 - 4 - 0 less $3\frac{3}{4}\%$ one month
£16-16-0 " $8\frac{3}{4}\%$ " "
CARRIAGE PAID PACKING FREE

ORDERS may be sent direct or through the usual wholesale houses.

**The Lincoln & Midland Counties Drug
COMPANY, LIMITED**
PARK STREET, LINCOLN

Telegrams: "Lindum, Lincoln." Telephone: Lincoln 55

NEW PRODUCTSnow being advertised to
the Medical Profession

| | | Retail | Wholesale per dozen |
|---------------------|------------------------|--------|------------------------|
| BIOMUCINE | - - Box of 24 Cachets | 7/6 | 68/- |
| ENTEROMUCINE | Tins of 100 gms. - | 7/- | 63/- |
| ORKITONE | - - Bottle of 8 ozs. - | 7/6 | 68/- |
| VAGOTONINE | - Ampoule of 2 ctg. | 2/9 | 26/- |
| | Box of 6 Ampoules | 12/6 | 120/- |

Your co-operation in promptly obtaining
supplies when required will be appreciated.

Telephone : Holb. 6011. Telegrams : Ampsalvas, London

THE ANGLO-FRENCH DRUG CO. LTD.
11-12 Guilford Street, London, W.C.1**PURE ORANGE WINE**
A. MILLAR & CO., LTD., DUBLIN(VINUM AURANTII B.P. 1914.) Prepared in strict accordance with the Formula of the British Pharmacopœia. (Wholesale only.)
Samples from Head Office, Thomas Street, DUBLIN, or London Office, 74 Great Tower Street, LONDON, E.C.3.**WHITE PETROLEUM JELLY****PHARMACEUTICAL AND TECHNICAL QUALITIES**
HOLROYD'S OIL & CERESINE CO., LTD., 3 NEW LONDON STREET, LONDON, E.C.3

ESTABLISHED 1793.

The Best and
Safest Infants'
Medicine of
over 130 years'
standing.**ATKINSON & BARKER'S**
INFANTS' PRESERVATIVEDoes not
contain
any
Scheduled
Poison.**ROBERT BARKER & SON, LTD., 13 WESLEY STREET, C. on M., MANCHESTER**

THE LATEST BEECHAM PRODUCT

This season the public will be demanding BEECHAMS Brand LUNG SYRUP! A NEW Product bearing a name which means SUCCESS—a name known and respected by MILLIONS—a name of incalculable goodwill which must ensure IMMEDIATE ENORMOUS DEMAND FROM THE START.

Everyone knows Beecham's Pills. The success of Beecham's Powders is beyond dispute.

The Success of Beechams Brand Lung Syrup rests upon the same solid foundation. Its efficacy in banishing COUGHS, COLDS, BRONCHITIS, and other RESPIRATORY TROUBLES is really outstanding.

A Bold, Forceful, Compelling advertising scheme, covering the foremost papers in the land, is now in operation. The public are responding to this advertising. Keep yourself stocked to meet every demand.



BEECHAMS BRAND *Lung Syrup*

TRADE TERMS FOR ALL BEECHAM PRODUCTS

BEECHAM'S PILLS

| | | | | | | |
|----------|---|---|---|---|------|-----------|
| 1/3 size | - | - | - | - | 11/9 | per dozen |
| 3/- | " | - | - | - | 28/- | " |
| 5/- | " | - | - | - | 54/- | " |

BEECHAM'S POWDERS

| | | | | | | |
|----------|---|---|---|---|------|-----------|
| 1/3 size | - | - | - | - | 11/9 | per dozen |
| 5/- | " | - | - | - | 54/- | " |

BEECHAM'S POWDERS (Tablet Form).

| | | | | | | |
|----------|---|---|---|---|------|-----------|
| 1/3 size | - | - | - | - | 11/9 | per dozen |
|----------|---|---|---|---|------|-----------|

BEECHAMS Brand LUNG SYRUP

| | | | | | | |
|----------|---|---|---|---|------|-----------|
| 1/3 size | - | - | - | - | 11/9 | per dozen |
|----------|---|---|---|---|------|-----------|

Less 2½% discount and a further 5% display allowance. Minimum Order £2. All goods packed free and despatched carriage paid.

**Stock more—Show more—Sell more
BEECHAM PRODUCTS**

BEECHAMS PILLS LIMITED

ST. HELENS, LANCASHIRE

This Chemist proved Lactogen is the Better Milk for Baby



"Dear Sirs,—I understand from Mrs. Wright of Harrogate Road, that you are to publish the photograph of her baby. Having supplied Lactogen to Mrs. Wright and weighed her child, may I testify to the healthy result of your perfectly balanced food. This beautiful child's happy disposition is ample evidence that all is well with her digestion. Congratulations!
Yours faithfully, (Signed) REGINALD T. WALSH, M.P.S.*

As a result of the balanced nutriment Lactogen provides, Baby develops healthily. Even the most delicate babies thrive on Lactogen. Flesh forms firmly, bone is dense, nerves are steady. The foundations of a robust constitution are laid. Lactogen, which is packed in hermetically sealed tins, is pure, fresh, full-cream milk from specially selected English herds, modified by the addition of extra cream and natural milk sugar, then dried. When the requisite boiled water is added, Lactogen is in all important respects exactly like breast milk.

The very best advice you can give Mothers, is "Put Baby on Lactogen."

Send to-day for full particulars and terms to the Lactogen Bureau (Dept. AZ80) Nestlé and Anglo-Swiss Condensed Milk Co., 6 & 8, Eastcheap, E.C.3

"LACTOGEN"
REGD. TRADE MARK

Lactogen—prepared by Nestlé's
—is a modified dried milk for
use in infant feeding.

2/9 PER TIN
P.A.T.A.

**BETTER MILK
FOR BABIES**

Copyright

D C L BRAND
YEAST

This famous Brand of Yeast is now available for Medical use in—

TABLET FORM
60 Tablets 1s. 6d. 120 Tablets 2s. 6d.
Retail Discount 33 1/3% Wholesale Discount 16 2/3%
All Orders Carriage Paid.

Can now be obtained in Cartons of 1 and 2 doz. bottles, containing 60 tablets, and Cartons, containing 1 dozen bottles of 120 tablets.
Supplies now available through usual Wholesale channels, and from The United Yeast Co., Ltd., London, Birmingham, Bristol, Leeds, Manchester and Newcastle, or from

THE DISTILLERS CO., LTD.
EDINBURGH

THE USE OF "D.C.L." YEAST WILL PROMOTE BETTER HEALTH AND IS RECOMMENDED FOR IMPROVING THE CONDITION OF THE BLOOD AND FOR THE TREATMENT OF SKIN ERUPTIONS, CONSTIPATION, INDIGESTION AND NERVOUS DISORDERS.

FOR
HALIBUT OIL & PREPARATIONS



WRITE
LOFTHOUSE & SALTNER LTD. HULL.

VICHY-CELESTINS

The world renowned NATURAL Mineral Water.

(And the other State Springs of Vichy)



We beg to remind the Trade that the above are on the P.A.T.A. list and show a good return to retailers.

These waters are largely prescribed by Physicians, and Chemists would do well to have an ample stock on hand.

Pamphlets, Show Cards and Dummy Bottles forwarded on application.

CAUTION—Each bottle from the STATE SPRINGS bears a neck label with the word "VICHY-ETAT" and the name of the

SOLE AGENTS:—

INGRAM & ROYLE LTD.

Bangor Wharf, 45 Belvedere Road, London, S.E.1

And at LIVERPOOL and BRISTOL

Telegraphic Addresses:

"Ingram Royle Watloo, London."

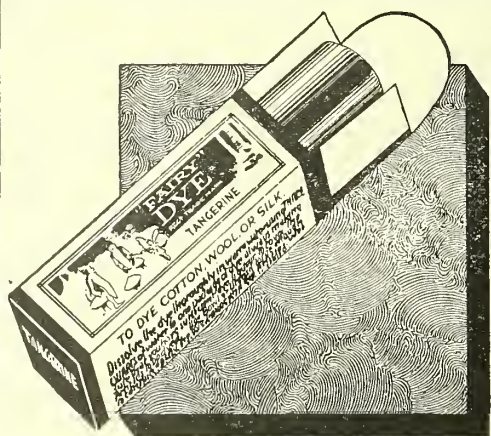
"Sprudel, Bristol."

"Celestins, Liverpool."

'Phone: Hop 4343 (2 lines).

'Phone: 21913.

'Phone: Bank 4528.



LONDON DEPOT:
292 UPPER STREET, ISLINGTON, N.1

FAIRY DYES, LTD., GLASGOW, N.W.

Fairy Dyes

**It pays to
Concentrate
on
Advertised goods**

FAIRY DYES

are well advertised in the National Press and Ladies' Journals. They meet with a large and steadily increasing demand.

Sold at the popular price of 2d. per tube retail—attractively packed. 31 shades and colours.

See that your stocks are up-to-date.

BUY

PYRAMID **BRITISH**
TRADE MARK

are better than ever.

6 and 8 oz.

N.H.I. 5^d. per gr.

Ordinary 8^{3d}. „

Fine 1/1¹/₂ „

Finest 1/8 „

10 gross carriage paid.

20 gross - - less 5%.

Less 5% cash with order.

Write for full Price List and Size Gauge.

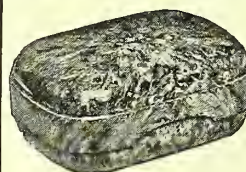
N. W. Mitchell & Snow, Ltd.

"The Cork Firm."

Limehouse, London, E. 14.



At Last!



a BAKELITE
SOAP CONTAINER

Standard Size and Shape

Made in many colours
Mottled and Plain

38/6 Per Gross

RESYNTHITE LTD. 128/129 CHEAPSIDE
LONDON - - E.C.2

Tel.: NATIONAL 7396

STOPPERS

AND BAKELITE SCREW CAPS



200 Varieties
Any Colour.

A suitable Composition Stopper will enhance the selling value of your package. Let us fit your Bottles and quote you.



W. J. SHARPLIN, Ltd. Telephone: Mountview 0952
Middle Lane Works, Hornsey, LONDON, N.8

THOUSANDS OF DOG OWNERS DO THIS EVERY WEEK Get Your Share of This Business

THOUSANDS of Dog Owners give their dogs Sherley's Tonic and Condition Powders every week, and other Sherley Products when necessary. There is a Sherley Remedy for every doggy ailment, and it will pay you to stock these popular quick-selling lines. They are protected at prices which show a wide margin of profit, and are sold on terms which eliminate all risk of loss. A postcard brings full particulars. A. F. SHERLEY & CO., LTD., 18 MARSHALSEA ROAD, LONDON, S.E.1.

STOCK ALSO SHERLEY'S

LACTOL and Lactol Biscuits
WORM Capsules and Powders
SKINCURE—Insect Powder
CANKER Lotion and Powder
LINTOX for Distemper
Cough Tablets—Fit Tablets
Anti-Gastritis Powders
Wound Lotion—Eye Lotion
Formalin Soap
Shampoo Dry Cleaning Powder
Dry Shampoo—Dry Cleaner



**SHERLEY'S
DOG MEDICINES**
are prepared by fully
qualified Analytical and
Pharmaceutical Chemists.

HARVEY'S Horse Remedies

P.A.T.A.
Protected Prices.



THESE Remedies are used in most of the Training Stables, Stables of Masters of Hounds, and by many thousands of the best Private Horse Owners in the United Kingdom and Abroad.

Supplies through all Wholesale Houses.

HARVEY & CO. (DUBLIN), Ltd., DUBLIN.

WE SUPPLY DECORATED TINS FOR PACKING OINTMENTS

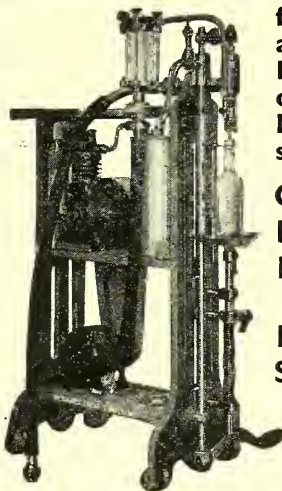
AND OTHER PRODUCTS.

SAMPLES AND PRICES UPON REQUEST.

THE CALDICOT TIN STAMPING WORKS LTD.

CALDICOT, Nr. CHEPSTOW, Mon.

ROBERTS' PATENT "LEO" VACUUM FILLER



for Glass, Stone,
and Tin Bottles.
Fills all sizes from
drachm to quart—
long, short or
sprinkler neck.

Clean and Rapid
No Over Filling
Broken Bottles
Rejected
Easy to Clean
Self Rinsing

WRITE FOR
PARTICULARS

Roberts' Patent Filling Machine Co.

T. ROBERTS, Proprietor,

33 Roundcroft Street, Bolton, Lancashire
Makers of every description of Bottle Filling and Shallow
Jar and Tin Filling Machine for the Chemists' use.

ALL RIGHTS RESERVED

THREE RELIABLE BRANDS

MORFI

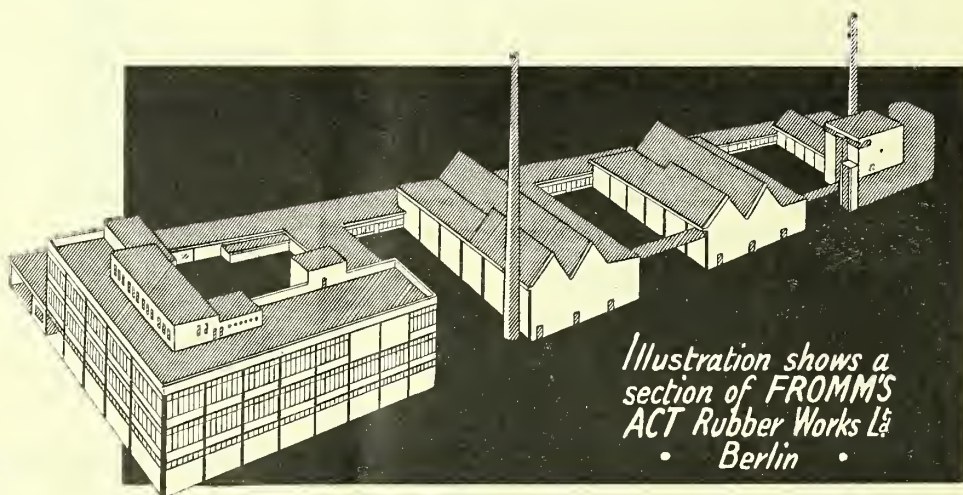
Fromms Act

Tropex

TRANSPARENT PREVENTATIVES

Hot vulcanised, and guaranteed to keep fresh for three years in any temperature. Well known Trade Marks. It has always been the principle of the Fromms Act Rubber Works, Ltd., to bring the best and safest quality of rubber preventatives on the market, and, through years of experiments in their own research laboratories, they have achieved their aim by making a rubber preventative which stands alone in the world.

YOUR CUSTOMERS ARE
ALWAYS SATISFIED
WITH MORFI



*Illustration shows a
section of FROMMS
ACT Rubber Works Ltd
• Berlin •*

Phone: - - HOLBORN 4870

Sole Importer of Goods of

FROMMS ACT,
GUMMIWERKE, G.M.B.H.,
BERLIN

(FROMMS ACT RUBBER WORKS,
LTD., BERLIN)

HERBERT FROMM
ALDWYCH HOUSE • LONDON • WC2

AUSTRALIAN SANDALWOOD OIL

B.P. 1932

[OLEUM SANTALI
ASTRAL]
"BRADDOCK BRAND"

of Delicate Aroma for Perfumery
and Guaranteed B.P. and French
Codex for Pharmacy

CLOVE OIL

B. P.

Extra Pale Colour ; also Caraway
Seed Oil, Almond Oil

PRUNELLA BALLS

at Reduced Price, of Good Shape
and Appearance, White or
Attractive Colours



WHIFFEN & SONS LTD.

Grams : Whiffen, London
Phone : Fulham 0037 [3 lines]



Carnwath Road, Fulham,
London, S.W.6

Packed Pharmaceuticals

under your own name

OWN NAME SPECIALITIES
WHICH PAY DIVIDENDS



3d. Series Packed Pills
18's. 23 Varieties available. 18/- per gross.
5 gross Assorted 16/6
Full Window Show Material

FRUIT LAXATIVES

Envelopes, 2's, 7/6 per gross.
" 3's, 9/- " "
" 4's, 10/- " "
Tins of 20 3/9 doz. Retail 6d.

SULPHUR TABLETS

Cellophane Rolls of 20 12/- per gross
Bulk with cartons, 7 lbs. @ 1/2
28 lbs. @ 1/-

ASPIRIN TABLETS

May we send sample packs
and prices for your year's
requirements? ASK FOR
DETAILS of our C.O.B. →
method of packing.

SLIMMING TABLETS

New Pack now available. Tins of
30 Chocolate-coated Tablets.
6/- per dozen to Retail @ 1/3

A Few Appreciations:

"We intend to dispose of
our present stocks of
tablets and have all C.O.B.
goods in future.
Even representatives of
other tablet firms have to
admit the excellence of the
pack."

"The service I consider is
an excellent one, as it
assists Retailers to meet
competition."

ARTHUR H. COX & CO. LTD.

Manufacturing Chemists

BRIGHTON

The CHEMIST AND DRUGGIST SUPPLEMENT

This Supplement is inserted in every copy of The Chemist & Druggist

28 ESSEX STREET, LONDON, W.C.2

MARCH 31,
1934

ADVERTISEMENT TARIFF

ALL ADVERTISEMENTS are PREPAID, so that remittance must accompany instructions in each case. If it be necessary to telephone or telegraph an urgent announcement this may be done, provided the money is telegraphed at the same time.

BUSINESSES WANTED and for **DISPOSAL, PREMISES TO LET** and **FOR SALE, PREMISES WANTED, PARTNERSHIPS, GOODS** for **SALE** and **AGENCIES**—6/- for 50 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

SITUATIONS OPEN—6/- for 40 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

SITUATIONS WANTED—2/- for 18 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

LEGAL NOTICES, TENDERS, AUCTIONS, and all specially-spaced announcements, 1/3 per nonpareil line (12 lines = 1 inch single column). (Box No., 1/- extra.)

MISCELLANEOUS (Wholesalers') Section for odd and second-hand lots—10/- for 60 words; 1/- for every additional 10 words or less. (Box No., 1/- extra.)

EXCHANGE COLUMN (for Retailers, etc.)—Twopence per word, minimum 2/- (Box No., 1/- extra.)

THE CHEMIST & DRUGGIST, 28 Essex St., Strand, London, W.C.2
Telephone: Central 6565 (8 lines). Telegrams: "Chemicus, Estrand, London."

CLOSING FOR PRESS.

must reach us
not later than

FIRST POST THURSDAY MORNING

All advertisements intended for
insertion in this Supplement

ORRIDGE & CO.

56 LUDGATE HILL, E.C.4

ESTABLISHED 1846

Telephone No.: CITY 2283

May be CONSULTED at their Offices on MATTERS of SALE, PURCHASE & VALUATION

We make no charge to purchasers, and invite intending buyers to communicate with us, stating their requirements

1.—CHELSEA (NEAR).—Middle- and Working-class Business in excellent position in busy main road; old-established; returns under management £40 weekly; accountants' figures; stock and fixtures worth £750; first reasonable offer will be accepted.

2.—PUTNEY (NEAR).—Family Retail Business with Good Prescribing; returns last year £1,100; neglected owing to ill-health; net profit £328; corner shop; rent £52; renewable lease; price £650 or near offer.

3.—LONDON, W.C.—For immediate disposal at sacrifice price, a neglected business offering scope; corner position in main road; new lease at £120, including living accommodation; very old-established; price about £400.

4.—CHARING CROSS (NEAR).—Cash Retail Business in busy main road; returns £2,800; net profit £800; stock and fixtures worth £1,100; rent £125; price £2,500 or offer; branch also for disposal returning £2,200 per annum; price £1,350.

5.—CAMDEN TOWN.—Cash Retail Business with fair amount of Panel; excellent position in busy main road; returns under management average £2,500 per annum; rent £110; two flats over; price £1,250 or near offer.

6.—WESTERN SUBURB.—General Retail Business with N.H.I. about £250 per annum; returns 1933 £1,733; scope for increase; rent £80 rising to £100; long lease; stock worth about £450; valuation terms entertained; Vendor retiring.

7.—SOUTH KENSINGTON (NEAR).—Good-class Business with private Dispensing; N.H.I. about £80 per annum; returns 1933 £2,100; main road position; flat over available; rent £100; 20 years' lease; price £1,500 or valuation terms entertained.

8.—SURREY (UNOPPOSED).—Good-class Country Business with increasing turnover, present rate about £1,300 per annum; five-roomed house; rent £78; long lease; unopposed; price £900; stock would be reduced if necessary and part payment entertained.

9.—CITY BUSINESS with Wine Licence; established 60 years; returns average £2,556; accountants' figures; 14 years' lease; price £600.

10.—HARROW (NEAR).—Good-class Family Retail Business; returns 1933 £2,370; modern shop in main road; 17½ years' lease; rent £150; flat available if required; price £1,750 or valuation terms entertained; increasing turnover.

11.—SOUTH COAST.—Good Middle-class Business with small Optical connection; increasing turnover, this year over £3,000; net profit about £800; good house; rent £96; 15 years' lease; price £2,300 or valuation terms entertained.

12.—YORKSHIRE.—Neglected Business for sale on account of Vendor's advanced age; returns last year about £900; living accommodation; rent £36; price £550; scope for increase.

13.—DEVON.—Unopposed Middle- and Good-class Business; established 1884; net profit £600 per annum; scope for development; 8-roomed house; rent £60; option to purchase property; price £1,650.

14.—HANTS.—General Retail Business; increasing turnover, this year being about £1,420; opening for Optics; living accommodation; stock worth £460 and fixtures £250; price to be agreed.

15.—BERKS.—Middle-class Cash Drug Store; returns £1,501; net profit £468; up-to-date shop front; good living accommodation; rent £75; new lease; old-established; present hands 23 years; price £850.

16.—MIDLANDS.—Good-class Family Retail Business; returns exceed £2,000 per annum, increasing; good house with garden, lawn, fruit trees, etc.; rent £78; 14 years' lease—renewable; valuation terms entertained.

17.—EASTERN COUNTIES.—Good-class Retail Business; established 20 years; returns £1,360 under management; gross profit £520; stock worth £200; fixtures £30; price about £530.

18.—SURREY.—Good-class Family Business—neglected; returns 1933 £1,125; good living accommodation; Vendor owns property and will sell same or grant a lease; excellent position in main road; stock and fixtures worth £650; offers invited.

19.—BOURNEMOUTH.—Good Middle-class residential Business; all cash; returns 1933 £1,250; modern house; small garage; rent £130; 11 years' lease; price £900 or first reasonable offer.

20.—HEREFORDSHIRE.—Country Retail Business; established over 60 years; returns £1,678; net profit £530; stock worth £1,200; fixtures £500; good house; branch also for disposal, stock and fixtures worth about £500; low rents; price for two £2,300 or Vendor would sell separately.

Chemists' Transfers, Valuations for Sale, Stocktaking & Probate

Special Terms for Income Tax Valuations and Preparation of Accounts by Qualified Accountants.

Ernest J. George
Jr. & Co.

Bank Chambers, 329, High Holborn, London, W.C.1.
Telephone Nos. Holborn 1167 & 1278, (2 lines).
Tudor House, Walsall, Telephone, Walsall, 3774.
Chemists Valuers & Transfer Agents.

(C1) CENTRAL, LONDON.—Exceptionally good profit-earning business, with quick cash turnover; returns upwards of £4,000 p.a.; net profit about £850; low rental; living accommodation; capital requirements £3,500 or near.

(C2) WORTHING (NEAR).—Attractive modern pharmacy, with excellent up-to-date house attached; turnover upwards of £3,000 per annum; net profit about £780; rent and rates £124; lease 15 years; price £2,300; good reasons for disposing.

(C3) NORTH-EAST COAST.—Old-established family business; turnover approximately £2,100 per annum; good living accommodation; price £1,500, including stock and fixtures estimated at £1,200.

(C4) LONDON, N.W.—Attractive modern pharmacy, rapidly increasing; present returns approximately £3,250 p.a.; optical connection; no opposition; modern flat above; price £2,500 or near offer.

(C5) SOUTH COAST.—Old-established dispensing business, with plenty of scope for further increase; present turnover £2,200 p.a.; net profit £505; rent £86, which includes good living accommodation; price £550 for goodwill, plus value of stock and fixtures. (The business carries a heavy stock.)

(C6) BOURNEMOUTH.—Established retail business, with living accommodation, for disposal owing to retirement; average turnover for past three years approximately £2,100 per annum; low rental; good scope for further increase.

(C7) KENSINGTON (NEAR).—High-class family business, situated in busy shopping thoroughfare; turnover approximately £2,200 p.a.; lock-up shop; rent £100; long lease; price £1,400, or near offer.

(C8) BUCKS (NEAR).—Good-class business with excellent future potentialities; main road situation; present turnover approximately £2,000 per annum; net profit about £425; up-to-date flat above; price about £1,250.

(C9) EDGWARE (NEAR).—Progressive modern pharmacy, with living accommodation; present returns approximately £28 per week and increasing; low rental; very reasonable purchase price for quick sale, which is desired owing to sudden family illness.

(C10) BOURNEMOUTH.—Modern pharmacy, with good flat above, including garden and garage; turnover £1,250 p.a.; growing district (not seasonal); rent £130; stock about £400; price £900, or reasonable offer.

(C11) DULWICH.—Exceptional opportunity to purchase small business with good prospects, at an extremely low figure; present net profit to owner-proprietor upwards of £250 p.a.; inclusive rental £80 10s.; price £400 or offer, part of which could remain.

(C12) ROMFORD.—Modern pharmacy, with excellent scope for further increase; turnover for 1932-33, £1,440; rent £75; price for quick sale £550, or offer.

(C13) HAMPTON COURT (NEAR).—Good profit-earning business, showing steady and consistent increase; turnover approximately £1,550 per annum; net profit £400; no opposition; price £900, or offer.

(C14) DERBY.—Old-established middle-class business; present turnover approximately £1,350 per annum; living accommodation; rent £52; no near opposition; low price for quick sale; genuine reasons for disposing.

(C15) BIRMINGHAM.—Good middle-class business with abundant scope for development; present turnover approximately £20 per week; low rental which includes living accommodation; "bargain" price for quick sale; immediate investigation advised.

(C16) LONDON, N.W.—Quick counter business, situated on main road; large N.H.I.; turnover for 1933, £2,505; gross profit about £1,100; rent £110, including two flats above; good lease; price £1,200 all-in; exceptional opportunity.

(C17) MANCHESTER AND LIVERPOOL.—Several good businesses of varying sizes are available for purchase, and full particulars will be forwarded to prospective purchasers upon application.

(C18) LEEDS.—Corner pharmacy, situated on main road of working-class district; turnover for 1933 upwards of £1,850; rent and rates about £92, including living accommodation; good lease; "bargain" figure for quick sale.

(C19) LONDON, S.W.—Excellent profit-earning business, prominently situated in working-class district; turnover upwards of £1,500 per annum and increasing; price about £750; genuine reasons for disposing.

(C20) LONDON, S.E.—Exceptional opportunity for chemist with limited capital to acquire a particularly attractive pharmacy with excellent prospects; present returns £15/420 weekly; rent £80; business can be purchased for £500 or offer, representing considerably less than the value of stock and fixtures.

BERDOE & FISH

CHEMISTS' VALUERS AND TRANSFER AGENTS,

41 Argyle Square, KING'S CROSS, W.C.1

(One minute from St. Pancras and King's Cross Stations.)

1.—WEST MIDDLESEX.—Good-class Suburban Business showing steady increase; returns last year £2,370; books audited; splendid opening for Optics; modern well-fitted pharmacy; good position; fully stocked; price £1,750.

2.—SOUTHERN COUNTY.—Good-class business, in pleasant residential district; returns £1,850; net profit over £400; no near opposition; attractive modern pharmacy, with flat over, every convenience; price about £1,300.

3.—BOURNEMOUTH.—Good Middle-class Retail; steady all the year round trade; returns £1,250; good profits; modern pharmacy, with flat over, garage, &c.; stock and fixtures worth £700; price £900 or first reasonable offer.

4.—SUFFOLK (large town).—Good-class Retail; in good position; returns under manager £1,360; gross profits £520; plenty of scope for increase; price £530, or valuation terms arranged.

5.—BIRMINGHAM.—Light Suburban Retail; pleasantly situated; returns about £20 weekly; scope for increase; good main-road position; nice house; low rent; no reasonable offer refused.

6.—HOME COUNTY (20 miles out).—Well-established Light Cash Retail, pleasantly situated; no N.H.I.; returns last year £965, net profit £290; plenty of scope; good house and pharmacy, garden, garage, &c.; price £760.

7.—LONDON, N.W.—Cash Retail, with good N.H.I.; in busy main road; returns last year £2,500, under management; books audited; gross profits over 40 per cent.; rent £110; upper part can be let off at £80; stock and fixtures worth £700; price £1,200.

8.—MIDDLESEX.—Good Middle-class Suburban Business, all ready money; returns £1,600; modern, well-fitted pharmacy; main-road position; good stock; price £1,025 or offer.

9.—LONDON, W.C.1.—Old-established Cash Retail, with good N.H.I.; same hands 30 years; retiring; present returns £25 to £30 weekly; scope for increase; corner shop, with living accommodation; price £500, or first reasonable offer.

10.—LONDON, E.—Old-established Drug and Photographic Store; neglected through ill health; retiring; returns last year £832; fine chance for Qualified; 2 years ago was doing nearly £1,200; price £500 or offer; freehold can be purchased for £500.

Businesses Wanted

Estab. 1870.

Telephone: Terminus 3574.

THE ASSOCIATION OF MANUFACTURING CHEMISTS, LIMITED

(Business Agency, Transfer & Valuation Department)

KIMBERLEY HOUSE, and at EXCHANGE CHAMBERS,
Holborn Viaduct, LONDON, E.C.1 2 Bixteth St., LIVERPOOL.

PARKIN S. BOOTH, Valuer. Tels.: CITY 3691 (4 lines).

VALUATIONS, SALES OF BUSINESSES. STOCKTAKINGS.

Enquiries Invited.

S. F. CLARK, F.N.A.A. 'Phone: Prospect 3366

CHEMISTS' VALUER & TRANSFER AGENT

34 Marksbury Avenue, Richmond, Surrey

HAS FOR EXCLUSIVE DISPOSAL, SEVERAL SOUND

BUSINESSES IN LONDON AND ON SOUTH COAST.

BUYERS KINDLY STATE EXACT REQUIREMENTS,

GIVING ALSO BANKERS' REFERENCE.

STOCK-TAKING A SPECIALITY

TO GET INTO DIRECT TOUCH

with the best buyers of Drugs,
Chemicals, and allied products

ALL OVER THE WORLD

use regularly the publicity
service afforded by

THE CHEMIST & DRUGGIST

BUSINESSES

BOURNEMOUTH.—Splendid firms; Business for Sale several good and profitable p Harvey & Wheeler, 60 Buckle

BRADFORD.—For Sale as a factoring Chemist Bus plant, stock, premises, trad reference. Rawlinson, Smithell Manor Row, Bradford.

BUCKS (30 miles from Lon well fitted; moderate food class district; suit lady or g £150; stock (optional) at v

LONDON, S.E.—Exceptional modation (optional); bo dant scope under Qualified l including stock, about £200; p please apply to Ernest J. Ge

LONDON, West End.—Old-h ness; returns nearly im spacious shop, beautifully r Apply 627/4, Office of this

S.E.—VALUATION of fix £450 or near off 15s. per week; Kodak and s under manager 1931 £1,021 the business for a young m 628/6, Office of this Paper.

SOUTH-EAST LONDON.—Bel 5 rooms, kitchen, &c. r long lease at £70 p.a., r Write Box ZA28, c/o Deeds Axe, E.C.3.

SOUTHERN COUNTY.—On ated near to coast; and reasonable rental; long le ments approximately £2, chasers only, upon rec George & Co., 329 High

SUSSEX.—Good-class 1 accountant's figur £2,300. Apply "Lance

WILTS.—Good-class Busr hands nearly 60 year position; scope; price £4,00 £3,000. 238/555, Office of

£150 OR OFFERS.—Hess, lated district; sho above let off; profits have br owing to mismanagement; F suit married couple; scope. Paper.

£500—YOUR OPPORTU expanding distric ground station; entirely lished three months only; M stockroom, self-contained flag easily sublet; stock, fittings N.H.I. Dispensing, Photogr Post Office shortly; genuin steadily increasing; rental a Qualified man. Phone Ruislip Manor, Middlesex.

BUSINESSES

LONDON (N. or N.W. prop Sound Business with n profit of £300-£350 per atk available up to £900; aka 238/554, Office of this Pa

PREMISES

WHITBY.—4 The Paradi modern houses and sh hour. Apply B. S. Meekid Manchester. 'Phone: 1332

APARTMENTS

WHEN YOU COME TO FA RES-U FOR GENTLEMEN, Ha Cross and Euston. 3 including baths, attendanc in dining room. Modern Billiards Room, Reading Prospectus from Secretary

DISPOSAL.

on among multiple
ads 32 years; £900;
Full particulars from
oad, S.W.1.

old-established Manu-
ductive Organisation;
dw apply with bankers'
l, altered Accountants,

S. Branch Pharmacy,
ill-populated working-
xts, fittings, lease, &c.,
8/ Office of this Paper.

g Se, with living accom-
out 15 per week; abun-
ent; price £325, in-
st. For further details
32 High Holborn, W.C.1.

high class Dispensing Busi-
ng corner premises;
uin reason for disposal.

xtu only, in all about
rent and rates only
scd for Optics; turnover
1,9, 1933 £991; just
sta with limited capital.

ell-ed Drug Store with
for Qualified man;
take £16 p.w.; £300.
Agency, 5 St. Mary

ge class Business; situ-
ds £3,000 per annum;
ver; capital require-
to g line prospective pur-
erences. Ernest J.

spose net profit £800;
for disposal; price
0/ Office of this Paper.

oped for Disposal; same
of £2,300; excellent
le nises worth at least

g, stated in thickly-popu-
lous 3 rooms; rooms
r w, but have fallen off
y, 1934, over £20;
s. 6/29, Office of this

O.—Middlesex; new rapidly-
adise; adjoins Under-
Chet's Business estab-
shop, spacious back
qu; new; long lease; flat
ate lease worth more;
p, 'phone; scope for
t present low, but
tunity for energetic
or 53 Victoria Road,

WANTED.

qu by private chemist,
ion, showing a net
r immediately; cash
n strict confidence.

SALE.

one left of the ten
earest shops quarter-
66 Mosley Street,

NT

AY THE HAMPDEN
UB

N. Close to King's
d. to 25s. per week,
All meals à la carte
b Rooms, Library,
tudents. Illustrated

AGENCIES.

SWITZERLAND.—Old-established, well-connected, successful Agency Firm in Zurich wishes to represent good firm for the sale in Switzerland of their products in general use for industrial purposes. Write to Messrs. Borsari & Meier, Zurich, Seefeldstrasse 62.

DISTRIBUTING AGENCIES FOR PATENT MEDICINES AND TOILET PREPARATIONS.—Mr. S. Asher, of Asher's Pharmacy, Ltd., Johannesburg, who arrives in England on April 30, desires interview interested firms. Letters to be addressed c/o J. A. Ewing & Co. (London), Ltd., 73/4 Chiswell Street, London, E.C.1.

SITUATIONS OPEN.**RETAIL (HOME).**

MANCHESTER.—Qualified Manager required; permanency; must be good Window-dresser and capable Salesman. Apply personally or by letter, stating age, experience and salary required, to Keats, Dispensing Chemists, 161 Bury New Road, Manchester.

MANCHESTER.—Young Qualified Assistant required immediately; must be good Counter-hand, Window-dresser and accurate Dispenser. Apply by letter only, giving usual particulars as to age, salary required, &c., to The Secretary, Colmans, Ltd., 416 Stockport Road, Manchester, 13.

MIDDLESEX. near Uxbridge.—Manager wanted with Optical qualification, F.B.O.A., J.C.Q.O., for good Family country business; real live mau required, who must be a good Prescriber and pleasing Salesman; permanent and progressive position; enclose photo if possible and state when free. J. T. Roach, Merivale, 46 Cranes Park, Surbiton.

SOUTH-EAST COAST.—Required immediately, Qualified Assistant (age 28-35); single; smart appearance; must be good Salesman and used to high-class business; permanency to right man; state age, experience and salary required. 628/24, Office of this Paper.

SOUTH LONDON.—Required immediately, Qualified Assistant, whole or part time; duties chiefly N.H.I. dispensing; would suit elderly gentleman if active. Reply, giving the usual particulars, including age and salary required, 628/12, Office of this Paper.

SOUTH WALES.—Capable Assistant to take charge, with good knowledge of Optics; must be a good Window-dresser and possess a pleasing personality. Full particulars to Melville Thomas, Chemist, Neath.

TORQUAY.—Wanted, middle of April, Qualified (male) Assistant having good Dispensing and Retail experience; Optical qualification an advantage, but not essential; permanency for a suitable pharmacist. Apply, stating full particulars and salary required, E. Quant, Landour, Torquay. Applications unanswered respectfully declined.

A QUALIFIED Young Lady required, accustomed to high-class dispensing business; book-keeping experience an advantage; residential district Midlands; please send copies of testimonials, with full particulars and photograph if possible. 628/10, Office of this Paper.

CHEMIST-OPTICIAN for new business; wage, per cent.; state qualifications, age, salary, &c.; North Country man preferred; Optical equipment essential. Write 629/3, Office of this Paper.

CHEMIST, Qualified; must have knowledge of Optics and own equipment; must also be active and pleasant; no Sunday or half-holiday duties. Ross, 91 Meadow Street, Sheffield.

JUNIOR Salesman-Dispenser for East Sussex Pharmacy; must be tactful, energetic Southerner and willing drive van and canvass if required; state age, height, salary required and experience; enclose photo and stamped addressed envelope. 626/37, Office of this Paper.

MESSRS. BOOTS have vacancies for Unqualified Assistants; applicants, male or female, must have served an apprenticeship in Retail Pharmacy. Give full particulars in first letter, addressed to the Retail Staff Department, Station Street, Nottingham.

OPPORTUNITY occurs for a keen, energetic Young Man who wishes to invest in a sound business; about £250; wage and half-share of profits; must be first-rate Dispenser and Prescriber and capable of managing a business. Write, stating wage, age and experience, G. M. Christian, 112a Swaby Road, Earlsfield, S.W.

PHARMACY.—Unqualified Female Assistant; good all-round experience, Dispensing, &c., necessary. Write, stating age and experience, to the Staff Manager, Royal Arsenal Co-operative Society, Limited, 148 Powis Street, Woolwich, S.E.18. Endorse envelope "Pharmacy." Note.—Canvassing of members of the General Committee or officials will disqualify.

QUALIFIED Dispenser (about 23) for small business in South Devon; must have excellent references; state salary required. Pharmacist, 628/40, Office of this Paper. Applications not replied to in four days respectfully declined.

QUALIFIED Lady or Gentleman wanted at once for the West Riding, Yorkshire; smart and young; N.H.I. Dispensing and Counter. Apply, stating full particulars, to 628/8, Office of this Paper.

QUALIFIED Locum for Birmingham district on April 30. Apply, with full particulars, to M.P.S., 628/14, Office of this Paper.

SPLENDID Opportunity for fully Qualified experienced man to take charge of new business, near Bournemouth; must be of good appearance, about 40 years of age and married; moderate salary until business expands; 5 rooms of living accommodation rent and rate free; must be keen and steady worker with good references. 625/7, Office of this Paper.

WANTED.—An experienced, Qualified, Gentlemanly Assistant; must have excellent references. Apply, stating height, age, references and salary required, with photo if possible, to Hawker, Pharmacist, 129 Gloucester Road, Bristol, 7.

WANTED.—Thoroughly reliable Unqualified Assistant (Male). Apply, stating full particulars and salary required, Hodges, 131 Rushey Green, Catford, S.E.6.

WHOLESALE.

ADVERTISING.—Young Qualified Chemist with literary ability wanted by Wholesale Chemists; some knowledge of Medicine and Medical Terms essential; preference given to man who can collate and present facts in concise, informative manner; state salary, experience, &c.; send specimens of work. 238/552, Office of this Paper.

CUSSENS, SONS & CO., LTD.—Representative required; resident in Sheffield; applicants must have a thorough knowledge of the Toilet, Soap and Perfumery Trade and, in addition, know most of the chemists in the area of South Yorkshire, Nottinghamshire, Derbyshire and Lincolnshire; none others need apply. Full particulars to Kersal Vale, Manchester, 7.

PRIVATE Secretary-Assistant Housekeeper (one in family) wanted; refined lady (30-40); Qualified Pharmacist or with Science degree; non-resident; photograph desirable; state age, experience and salary required (otherwise no reply). 627/2, Office of this Paper.

REPRESENTATIVE (first-class) wanted for Wales and Western Counties; genuine connection Chemists and Hairdressers essential, and own car; prefer one handling one other line; salary and commission. Write details, 258/550, Office of this Paper.

SECRETARY-CHEMIST to take charge of small Cosmetic factory; only those with modern experience need apply. 623/3, Office of this Paper.

WANTED for different parts of England, Scotland and Wales, where not already covered, to sell on commission Sunax Pastilles Registered line with outstanding free gift offer; also all Sunswets products; car essential; state ground covered. Sunswets, Ltd., Peterborough.

WANTED for London area, Representatives to call on Chemists; salary and commission; diligent gentlemen with good connection in the trade send full particulars and areas covered. 238/553, Office of this Paper.

SITUATIONS WANTED.**RETAIL (HOME).**

A.A.A.—QUALIFIED (28); tall; experienced all branches; as Manager or Assistant; excellent references; free one week; Northern Midlands preferred. Davies, 28 Shardlow Road, Alvaston, Derby.

AS Locum, Manager or Assistant, "not registered"; over 30 years' London experience; whole or part time; Counter, Book-keeper, Dispensing and worker; London only. "Prescriber," 130 Scott-Ellis Gardens, N.W.8.

ASSISTANT, Junior (20); keen, energetic; creative Window-dresser; experienced Dispensing, Counter and Photographic; apprenticeship finished; free; gentlemanly. Robert Lee, 51 Ethronvi Road, Bexleyheath, Kent, or 'Phone Bexleyheath 181.

ASSISTANT (20); tall, smart appearance; used to middle-class business and large N.H.I.; good Salesman and Window-dresser; permanency required, East London or City; moderate salary. 628/23, Office of this Paper.

ASSISTANT (24), Qualified; 8½ years' good Retail experience; excellent references; disengaged. 90 St. Paul's Avenue, Kenton, Middlesex.

CLEAR OUT—your Old or Damaged Stock of Photo Goods.

Why keep them any longer? Turn them into CASH. I GIVE BEST PRICES for Old Films (damaged, fogged or expired dates); Packet Papers, Cards (any sizes), Old Photo Goods or Cameras. Bromide Papers, Plates (all sizes, all makes). Send any goods in the photo line. I buy all, good or bad. Cash per return. A good price for all Cameras. Send them along. **S. E. HACKETT, 23 July Road, Liverpool**

ASSISTANT (28), Unqualified; tall; Dispenser, Salesman, Window-dresser; all-round experience; excellent references. Hughes, 65 Chamberlayne Road, N.W.10.

ASSISTANT (24), Unqualified; tall, smart appearance; excellent references and experience; disengaged. "P.", 20 St. Hilda's Road, Griffithstown, Mon.

ASSISTANT (24); Unqualified; West End, seaside, City; N.H.I.; accurate Dispenser, Window-dressing; London. "C.", 44 Turnville Road, W.14.

ASSISTANT (30), Unqualified; Window-dressing, Photography, Counter, Dispensing; excellent references. "Tincture," 31 Wrotham Road, Broadstairs, Kent.

ASSISTANT; 25 years' all-round experience; Dispensing, Counter, Photo; single; active; unregistered. Statim, 3 Elmwood Avenue, Bath Street, Huddersfield.

CHEMIST, young, Qualified, requires position Manager or Assistant; accurate Dispenser, Counterman, Window-dressing; knowledge Optics; free; London or suburbs. Apply Chemist, 77 Mountnod Road, Streatham, S.W.16.

DO you require a Live Manager for home or abroad? If so, answer this Ad. Interview essential. 627/26, Office of this Paper.

EFFICIENTLY Trained Assistant, Unqualified (21 years); 6½ years' experience; quick, accurate Dispenser, smart, obliging Counterman, Window-dresser; conscientious, keen and willing worker; free April 12; anywhere. Wbelp-ton, Eckington Road, Beighton, Sheffield.

EXPERIENCED, Unqualified, but competent Assistant; Scot; tall; 25 years' first-class experience seaside, country, London; quick, clean, accurate Dispenser, Counter; disengaged; moderate salary. Johnstone, 3 Babington Road, Streatham, S.W.16.

LADY, Qualified, "Square" trained; experienced Wholesale, Retail and N.H.I.; accurate Dispenser; good recent references; desires permanency London only; salary moderate to start. Miss Hughes, 6 William Street, Kensington, W.8.

LOCUM, M.P.S.; tall (30); sterling honesty; excellent references; anywhere; forward booking; resident Yorks. 626/36, Office of this Paper.

LOCUM or Manager; 20 years' experience, including West End; Counter, Dispensing, expert Photographer; highest references. Heathfield, Shelton Road, Boscombe.

LOCUM or Manager (36); Qualified; all-round experience; competent, reliable. Gregory, 50 Grove Lane, Camberwell, S.E.5. Phone: Rodney 2719.

LOCUM, Qualified (25); London or suburbs only. Phone Streatham 7406 or write, Chemist, 102 Streatham Road, Upper Tooting, S.W.17.

QUALIFIED Manager, 25 years' excellent experience, trustworthy, competent, abstainer, desires permanent post where initiative and ability, combined with tact, can be appreciated; suit Chemist wishing to take things easier or through illness unable to give the attention necessary. 629/2, Office of this Paper.

QUALIFIED Scot, tall (age 29), desires change; 6 years' West End Dispensing and Counter experience; Retail, Wholesale or Hospital; excellent references. 623/11, Office of this Paper.

QUALIFIED (25), with good all-round experience Counter, Windows, Dispensing and N.H.I., seeks situation London or suburbs; interview Thursday or Sunday evenings. 627/35, Office of this Paper.

YOUNG Man (25) desires position; 6 years' varied experience; Wholesale, Retail, Manufacturing, Dispensing; go anywhere; disengaged; excellent references. Statim, 30 St. Mary's, Bootham, York.

YOUNG Man (23), Unqualified, 5½ years' experience Dispensing and Counter, desires temporary post, 2-4 weeks, during April; good references; moderate salary. W. L. Ward, 15 Harold Avenue, Gillingham, Kent.

WHOLESALE.

A.A.—TRAVELLER covering Eastern Counties, own car, desires 628/26, Office of this Paper.

AS REPRESENTATIVE, keen man, Qualified, with 9 years' West End experience in Retail, desires change; thorough knowledge of Drugs, English and French Toilet preparations. 627/30, Office of this Paper.

M.P.S. seeks position as Representative to Wholesale Druggists; South-Eastern area preferred; age 33, married. 624/16, Office of this Paper.

PHARMACIST, middle-aged but "young," active, of good address, at present proprietor of retail business, desires position either administrative or as representative of firm of high standing. 628/3, Office of this Paper.

REPRESENTATIVE (32), good connection Chemists and Stores, desires change; Yorkshire and Northern Counties; own car; excellent references. P.C.B. 112/25, Office of this Paper.

TINCTURE Maker; Wet and Dry Counter; Export Packer; 20 years' experience. Canning, 171 Boundary Road, Leyton, E.17.

WIDOW, disengaged, seeks work in any capacity in Factory; used to controlling female labour; experienced in Labelling, &c. M. B., 47 Lowden Road, S.E.24.

FOR SALE.

(Articles to the value of £5-£50.)

NATIONAL Cash Register for Disposal cheap; press-down key model. Write R. Woods, 18 Goodall Road, Leytonstone, E.11.

MISCELLANEOUS.

CHEMISTS' FITTINGS IN MAHOGANY OR OAK.—Drug Fittings, Wall Cases, Dispensing Screens, Serving Counters, All-glass Counters, Silent Salesman, Counter Drawers, Window Fittings and Enclosures. Send your requirements for lowest prices and satisfaction to **GEORGE COOK**, The Working Shopfitter, 27 Macclesfield Street, E.C.1. Phone: Clerk. 5371. Rough sketches free.

FOR SALE.—Gardner Fine Powder Dresser, with two C.I. Stands for same; also Iron Edge Runner Mill, 44 in. diameter; Pan, Runners 21 by 6 in., under-driven, fast and loose pulleys. 238/546, Office of this Paper.

FOR SALE.—Gas-heated Batch Drying Machine, with gear, fast and loose pulleys; also Ball Grinding Mill or Pulveriser. 238/548, Office of this Paper.

FOR SALE.—Size "E" Gardner "Rapid" Sifter and Mixer, suitable for Tooth Powders, with gear, fast and loose pulleys; also Gardner Mixer only, 100 lbs. capacity. Both in good condition; can be seen by appointment. 238/549, Office of this Paper.

FOR SALE.—Steam Jacketed Copper Boiling Pan, with draw-off Cock; jacket tested to 80 lbs. hydraulic pressure. 238/544, Office of this Paper.

FOR SALE.—Steam Jacketed Drying and Mixing Machine, batch type; also 9 by 16 in. Triple Roller Mill. May be inspected. 238/547, Office of this Paper.

FOR SALE.—Triple Granite Roller Mill, with granite rolls 6 by 12 in.; also small Breaking or Kibbling Mill with rolls 5 by 5 in. 238/545, Office of this Paper.

MODERN SET OF MAHOGANY FITTINGS.—10-ft. Drug Fitting, 8-ft. Glass-fronted Counter, 6-ft. "Ideal" Dispensing Screen, 5-ft. Wall Showcase, £65 complete. Call or write **PHILIP JOSEPHS & SONS, LTD.**, 90/92 St. John Street, Clerkenwell, E.C.1. Telephone: Clerkenwell 2191. "Pharmacy Fitters for over a century."

£58.—A Set of Second-hand Pharmacy Fittings in Mahogany, comprising 10-ft. Drug Fitting, 6-ft. Dispensing Screen, 10-ft. Glass-fronted Counter with 21 drawers at back, Perfume Case and Desk, Upright Glass Counter Case, 27 in. x 18 in. x 18 in.; excellent condition; write or call for full particulars. F. Maund & E. Berg (Showcases), Ltd., Shop Fitters and Shop Front Builders, 175/9, Old Street, London, E.C.1.

EXCHANGE COLUMN.**FOR DISPOSAL.**

(Articles up to the value of £5.)

THE Sign "Pharmacy," gold leaf letters, 19 in. by 2½ in., screws on to 11-ft. iron frame, complete as new, £5, cost £8. Holloway, Drug Store, Padstow.

WANTED.

FITTINGS, Shoprounds, &c., for small shop; must be cheap. 100 Parkhill Road, N.W.3.

